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THE ECONOMIC SIGNIFICANCE OF A COMPREHENSIVE SYSTEM OF NATIONAL EDUCATION

ANNUAL ADDRESS OF THE PRESIDENT

EDMUND J. JAMES

Members of the Association,

Somewhat more than twenty-five years ago some of us younger men who were interested in the study and teaching of political economy in the United States succeeded in organizing this Association.

The quarter of a century which has elapsed since that time has seen a great change in the standing of the professional economist. I think it is not too much to say that the voice of the student of economics as such is today more potent in the United States in the discussion and decision of public questions than it has ever been before.

I believe that this greater position of dignity and authority of the student and professor of economics is, in some degree, however small, due to the work which this Association, as a body, has accomplished; although, of course, any position of real influence or authority which economists as a class may have won has been due primarily to the actual merit of individual work—also perhaps in some measure to the increasing willingness of economic students to let purely abstract or academic questions drop into the background if thereby some positive practical advance could be made.

The policy of President Roosevelt and President Taft of selecting university men, and by way of preference, university men with economic training, for some of the most important expert positions at their disposal is a clear demonstration of the changed attitude of the people of the United States toward the scientific study of our political problems. And this policy which has been adopted by the federal government has been followed to a growing extent in our states and cities. There is a greater willingness to give the expert a hearing—at any rate, an increasing willingness to hear all sides of a problem before a decision is made, which certainly augurs well for the future welfare of the nation.

It is a source of legitimate gratification to us all that so many members of this Association have been drafted into the public

service. It is a source of still greater satisfaction that they have all made good in this field of work. Hadley, Emory, Jenks, Falkner, Rowe, Johnson, Kinley, are mere examples of a growing tendency which is full of promise for the future of economic studies and sound public policy.

At the time this Association was organized I felt that in the interest of economic and social progress there would be a decided advantage if economists could elaborate and support a positive program of economic and social advance.

My colleagues with whom I was associated in the preliminary and final work of organization did not share my views and this Association has remained, therefore, primarily a scientific body, pure and simple. I do not know, after all, that it has made any very great difference, and yet I am still of the opinion today, as I was then, that if our students of economics and politics and social science could find any questions of public moment and interest upon which they are in substantial agreement we might make a marked contribution to economic and social advance by taking a definite stand upon such questions of public policy. This consummation has indeed already been brought about in certain directions by the organization of specific associations for the study and promotion of positive economic and social problems; as, for instance, the Association for Labor Legislation which has grown out of this Association.

I think, however, that if the members of this Association could agree, for example (to take a concrete instance), upon the proper distribution of public and private expenditure in relation to national production and could work out a definite policy which would commend itself to the members of the Association, directed toward securing a more productive distribution of public expenditure, we might, without doing violence to our scientific character, produce a marked effect upon public sentiment and in the long run upon public policy.

For instance, no matter what theory we may have as to the social effects of war and the political advantage or disadvantage of settling questions of international scope by force, I think all students of economics agree that the modern world is spending an unreasonably large portion of the national wealth for purposes of war and preparation for war. No matter how high a value one may set upon the so-called moral benefits arising from an armed struggle among different nations to determine the survival of

national ideals—and I know that there are still people who maintain the moral value of such contests—no matter how high a value one may set upon the educational discipline which universal compulsory military service effects in the young men of a nation which adopts it—and I am aware that there are some very estimable people who set a high value upon such training—still I think the overwhelming opinion of the students of economics is that we have long passed the point at which it is desirable to extend still further the war budget.

The statement has been made that of late the appropriations of the federal government are distributed in such a way that nearly seventy-five per cent may be properly classed as war expenditures, that is, preparation for war, pensions payable on account of war, interest on the public debt contracted because of war, etc., etc. My own estimate runs higher.

Some twenty-five years ago I made a rough estimate of the expenditures of the federal government up to that time from the year 1789, covering nearly the first century of our national existence. I found that the total expenditure for all purposes on the part of the federal government had been something like eighteen billions of dollars, and of that amount sixteen and one-half billions had been spent for war, using the term again in its large sense, of money spent in preparation for war, in the conduct of war, and in settling the bills after the war was over. In other words, the expenditure of the federal government up to that time had been sixteen and one-half units for war and one and one-half for all other purposes whatsoever, including the so-called enormous expenditures for river and harbor improvement. Eleven twelfths of the income of the federal government spent on war!

And this is a peaceful nation!

Nobody can deny that a country which wishes to develop its civilization in an efficient way must protect itself from armed aggression and must maintain domestic order. Everyone will, furthermore, grant that if we propose, for example, to fortify our Atlantic and Pacific coasts in such a way that no fleet in the world could make a landing, it will take very much larger sums of money than we have thus far spent or have thought of spending upon war and war's alarms. But it is a long call from admitting that if we are intending to fortify our coasts in the manner suggested we must spend far more money than we are spending,

to the proposition that there is any necessity for expending such sums of money, or for undertaking to fortify our coast at all.

For my part I do not see how anyone who studies American industry and our international position can help feeling that we are already spending a larger proportion of our national income upon preparation for war than is justified by any dangers which actually threaten us.

Now I believe that if the students of economics would, acting together, that is, if this Association would persistently, in season and out of season, call attention to the danger of spending upon war an undue proportion of our national income, we should be able to affect very materially, in the course of years, the policy of the government on this point. This may serve as a mere illustration of the proposition that fundamental to any large consideration of practical economic problems and of the actual conduct of a national economy must be this question of how we propose to distribute our expenditure, for what purposes we intend to spend the national wealth which we have once created.

And as I believe that we have thus far spent entirely too much money in war and for war purposes, so I believe that we have spent far too little money for education. And it is this problem which I wish to present to your attention tonight.

The manner of the *consumption* of wealth has a great and fundamental effect upon the *production* of wealth and upon the possible increase in the production of wealth. That is, some forms of consumption are distinctive hindrances to the increase of wealth and no theory of production, no system of practical politics can be in any sense complete or satisfactory which does not bear this fact in mind.

So this evening I desire to discuss somewhat fully, from the standpoint of practical politics, the effect of a broad scheme of national education upon the increase of national wealth and what policy we ought to adopt in regard to it.

The subject of my remarks this evening is, the Economic Significance of a Comprehensive System of National Education.

I mean by system of national education in this title, a system of education so extensive in its scope as to reach every child, and for that matter every adult too, within the bounds of the United States or in the territory subject to its jurisdiction.

I mean by a comprehensive system of national education, a system which will excite and develop all sides of the child and

adult, which will call forth and train all the forms of talent and ability to be found in the children and adults of a great nation.

I mean by the economic significance of such system, the relation which it would bear to the production of national wealth.

I need not say that no system of national education, in the sense in which I use it here, has ever existed in the United States. There are thousands, nay one may say hundreds of thousands, of children within the United States and within the territory subject to its jurisdiction who have never been reached by systematic school education of any sort. There are thousands more children in the United States and in the territory subject to its jurisdiction who have never had the benefit of any schooling beyond a mere attempt to bring to them the opportunity to learn, in a feeble way, the elements of the three R's; and almost no attempt has been made to reach in any systematic way, for the purpose of developing all the talent within its children, the population of any single state of the American union. Nor has any attempt worth mention up to the present been made to strengthen and supplement such elementary education as is brought within the reach of the young children of the community by a system of encouraging and sustaining the further prosecution of the education of the schools, in later youth and earlier or later adult life.

All economists have recognized, though I think in a very inadequate way, the importance to the production of national wealth of the intelligence, knowledge, and skill of the laborer. It would be an observation that could scarcely escape the attention of any student of economy at any period of the world's history that the more intelligent and better trained the laborer may be, the more efficient would he be, other things being equal, as an instrument of production in the general scheme of national economy. But even these economic writers who have given most attention to this aspect and have dwelt upon it most fully, seem to me not to have realized the *possibilities* for the increase of national wealth which lie in the increased intelligence, education, and skill of the laborer. Very few of them have recognized the extent to which this intelligence, this education, and this skill may be increased by the conscious taking thought and conscious action of the community, directed toward this specific end. Still fewer of them have recognized that an educational system, in this large sense in which I have used it, may above all be an important factor in the development of that *directing, managerial, initiating*

talent which forms such an important element in the system of national production, and which distinguishes nations and races in quite as marked a way as the quality of the laborer himself.

I am aware that some authorities are inclined to deny that a nation may by conscious effort increase the number or the potency of these fundamental elements of national production. They are inclined to think that just as the coal, and natural gas, and gold and silver, and the possibly arable land are things given once for all, so national talent and national ability are, so to speak, fixed quantities. A nation cannot materially increase either their amount or their potency by any conscious effort looking toward their promotion.

Thus the great Bavarian economist and statistician, Wilhelm V. Hermann, one of the shrewdest of the German writers on economics, is very outspoken in his view that no nation can through its school system or its educational system really increase greatly the efficiency of its national industry. He says, "wie er geboren, so ist der Mensch sein leben lang:" "As the child is born so the man remains as long as he lives:" though even he would allow, I presume, that if we could have caught his grandfather and trained him and also his father we might have improved the grandson.

But, I believe that this is a mistaken view. I share the unconscious feeling which seems to animate the American people to an ever increasing extent that, by systematic effort, the latent national ability may be called forth and may be trained to such an extent as to make the result of such an educational system essentially different in quality and in kind, and not merely in quantity, from that which would be the outcome of letting things take care of themselves.

It seems quite probable that a people like that of the United States may, by systematic and persistent effort, develop to absolutely unheard of and undreamed of proportions, the ability of the nation in all the different directions in which human faculties may be exerted.

Every student of human civilization must be struck by two things: first, the large number of different elements which must conspire together at any one time in order to produce a great increase in national wealth; and, on the other hand, how few people after all in the history of the race have really contributed in any important way to working out the problems upon whose

solution the next great advance in civilization depended. No such production of national wealth as has occurred within the last generation could have taken place, of course, without the co-operation of countless influences reaching back in their development and origin into the remotest periods of the past. But very small is the number of men after all who have really contributed by their scientific discovery, or their inventive genius, in any important way to this progress. If we could multiply that small number by two, or three, or four, or five, or ten, or a hundred—as might easily be done if we were to adopt a system of education which will discover, call forth, and train all the talent of the community to its highest efficiency—the progress of civilization would be correspondingly hastened. The human race has spent such a large part of its total wealth in war that we have little idea as to the enormous progress that might be achieved if the energy and attention of the race could be turned as fully and completely toward this problem of developing the race on the side of its industrial talents as it has been turned to the work of destruction.

This progress does not always seem rapid. The race, of course, must have time to develop, must have time to grow, in order to be capable of the intellectual effort, nay even of the prolonged physical effort, involved in the production of such enormous quantities of material wealth as have been produced within the last century. It is inconceivable that the African or the American Indian, as Columbus knew him, or generally speaking any barbarous peoples, should develop within a generation or even two generations those particular qualities to that particular extent which are necessary to develop and maintain a high degree of civilization. The mere qualities of endurance, or persistence, of imagination, necessary to enable the civilized man to continue at even the rudest of civilized occupations long enough to work out their natural results are lacking to the barbarian.

Now, of course, it is undoubtedly true that the possibilities of any system of education are strictly limited by these fundamental facts founded in the nature of individuals and of races. But, given the civilized white or yellow man as we know him today, as the result of countless generations of ever expanding civilizations, my proposition is that such a nation can, by a conscious effort, increase to a very great extent the production of national

wealth, by discovering, developing, and training the productive ability of its population.

The American people have been much concerned of late about the conservation of their natural resources, and they may well be thus exercised. Waste represents an absolute loss in the human economy. There is no doubt that we have permitted the national wealth of the country to be exploited in an uneconomical way in many directions, owing to the greed, or shortsightedness, or both, of private interests. This exploitation has steadily been accompanied at many points by waste. Waste is, economically speaking, a sin for which there is no pardon. Its penalty must be borne either by the people who are guilty of it, or by those who succeed them, and the American people has undoubtedly been wasteful in the exploitation of its natural resources. We have mined our coal oftentimes in such a way as to destroy forever the value of a large part of it. We have allowed our natural gas in great quantities to escape into the atmosphere or be burned as it came from the bowels of the earth, with no resulting economic gain. We have undoubtedly used at many points wasteful methods in the cutting off of our forests, and have failed to observe that the larger interest of the community as a whole demanded a greater care in the removal of our timber wealth.

But after all, the mere preservation of natural resources is not in any proper sense of that term a conservation of natural resources, that is, such a care of the natural resources as will work out the largest economic result. The American Indian had preserved the natural resources of the North American continent up to the coming of Christopher Columbus, and for anything that we can see would have preserved them for countless generations. The Mexican peon still preserves the natural resources of great stretches of the most fertile Mexican territory. The savages of Africa, and generally speaking of all countries, preserve the natural resources; but we can hardly speak of them as conserving them in any proper sense.

There will naturally be great differences of opinion as to whether any particular policy in exploiting the forests or the mines or the fields is, economically speaking, wasteful or not. That which seems to be wasteful at one time and under one set of conditions may be the height of economy under other conditions. The lavish use of natural resources may in some places be the condition of developing a civilization which may subsequently find it necessary

to adopt entirely new principles of management, if its system of exploitation is to be as economical as was the former.

However, no matter how liberal we may be in permitting to count as true economy the lavish use of natural resources in the development of a civilization, I think there is general agreement after all among students of the subject that the people of the United States have at many points been wasteful in the true sense of that term, namely, in producing their sum total of national wealth at a cost beyond what would have been occasioned if a better system of exploitation had been adopted.

But with this concession, I desire to emphasize again what seems to me to be the fact in the case, that the *discovery*, *development*, and *training* of the *talents* and *abilities* of our people is of far more significance to the continued and increasing production of national wealth than is the so-called conservation policy, important as that is. We may fairly enough, if we are wise in our day and generation, through the increasing intelligence of our people, *develop the conditions of an increase of national wealth* far more rapidly than we are *losing* them through the exploitation of our natural resources.

I have myself never been able to become excited over the demonstrations which are afforded from time to time that the human race is destined ultimately to poverty and despair because of the exhaustion of our coal fields.

We certainly should not waste our coals in the sense of using them up with nothing to show for such use. But, on the other hand, the proposition to preserve the coal which we may profitably use now in the development of industry or increasing the comfort of humanity because we are afraid that our posterity may suffer from cold or hunger, would seem to me to be absurd. I believe that if the race were to give its attention steadily to the scientific and practical investigation of means of laying under direct contribution the energy of the sun, of the falling water, the flowing stream, the sweeping tides, the rushing winds,—I say if the race would spend a tithe of the money upon the study of that problem which it has given to the study of the means of destroying its members, we might safely proceed to use up our coal fields to the last ton, relying upon our ability in the long run to discover adequate—nay more than adequate—substitutes for the energy and light and heat pent up in this wonderful storehouse of nature.

The same thing is true in regard to the exploitation of the

soils. We have not as yet reached an ultimate judgment as to the conditions of soil fertility, or as to the conditions under which the productivity of soils is maintained or destroyed. We have found out a few things in this respect, but the world of what we do not know is so much larger than the world of what we know that for my part I have never been able to feel that extreme anxiety in regard to the depletion of our soils that many of my colleagues who are engaged in the study of soil chemistry and soil physics and soil biology have thus far felt. There is doubtless such a thing as ruining the soil. There is such a policy as the ruinous exploitation of the natural qualities and resources of the soil; but I have a firm belief that if the nation, or the race, would give its attention and its thought as seriously to the problems of soil fertility as it has to problems connected with the army and navy we should find ways and means of increasing our crops while protecting and restoring the fertility of soils which at present are quite beyond the possibility of even our imagination.

In the same way, while we are undoubtedly guilty of great waste in the exploitation of our stores of iron, and such waste ought to be stopped, yet I have full confidence that if we should give thought and attention and money to scientific investigation directed along right lines we should find some substitute for iron fully as efficient and fully as helpful as iron itself, long before it should fail us. And the same thing is true to a greater or less extent of all our national resources.

I am aware that this view of human progress is scouted by many as lacking substantial proof of its correctness, as mere nonsense and the stuff that dreams are made of; and it is fortunately not necessary for me, in order to make my point, to demonstrate the full truth of the proposition, since all that is requisite for my present purpose is to secure your consent to the proposition that we may *materially* increase the conditions of national wealth by a properly considered educational policy.

That the skill and intelligence of the average laboring man in the United States were greatly increased by the astonishing development of our elementary and secondary school system during the years following the war must, I think, be conceded by any student of our national history. And yet that education was very largely limited to giving the rudiments of an English education, such as reading, writing, and ciphering—and that not to all by any means.

When our secondary school was developed, though at first very narrow in its scope, it accomplished even more striking results, because it helped develop the directing talent in the community.

A system of national education having in view the objects which I have suggested must include, speaking generally, for the people who remain in school, two elements, which for purposes of discrimination we may generally describe as the liberal and technical elements. Under the head of the liberal element I should include those fundamental features such as reading, writing, and ciphering, which are the keys, so to speak, to the experience of the race. But I should not by any means limit the scope of this instruction to these three R's, for it is certain that one of the fundamental objects of a national system of education can never be realized unless the range of instruction in the elementary school far exceeds these so-called fundamentals. Certainly one of the purposes of any system of education must be to discover the talents of the child, must be to find out in what way, that is, by the special development of what faculties, he may do his greatest service to his day and generation. Some men make their most important contribution as ditch diggers, as farm hands, as mechanics in the mills; others as directors in these occupations; still others as artists, teachers, lawyers, or physicians. A national system of education ought to find out the peculiar abilities of the child and put him in a way to develop them. This means, of course, that among the so-called fads, drawing and singing and a wide range of art work, should be represented in the elementary school as well as the teaching of reading, writing and arithmetic, geography and history and science.

But no child can afford to spend even the first twelve years of his life without coming in contact with some kind of training of the body and training of the mind which touches in some direct way the possibilities of his future occupations; and so manual training and domestic science, at least in their rudiments, must form a part of this fundamental, this common instruction which all children should have. That is to say, when our compulsory school laws are universal and really enforced, the school will have before it the problem of occupying in the best way from seven to eight years of the pupil's life; and in this time every child, not merely the white children, but the colored children as well; not merely the citizens of Massachusetts and New York, but those of Alabama and Louisiana; not merely the children of Ohio and

Illinois, but those of the mountain regions of the South and those of the semideserted portions of the older states, shall without exception have access to these opportunities.

But a national system of education will include, furthermore, for every child, an opportunity for technical, special training, looking forward to the career which the child is expecting to take up or which his parents are planning for him. This means in a large sense—and why should we hesitate today to speak it out boldly—a system of trade schools, a system of occupation schools so universal, so comprehensive, varying, of course, in character with the conditions in the different localities, that every child shall have the chance to prepare himself more efficiently for his life work in a trade or other occupation.

It is national waste of the first magnitude to turn children into the avenues of trades and commerce and industry in this great nation today without some of that kind of training for such work, which the school best of all can give. The apprentice system, as you all know, in the old form, if it ever was the ideal thing which it was supposed to be—and for my part I can find no evidence that it was—has at any rate today gone to pieces. The children of the community do not have a fair opportunity to prepare themselves on the technical side for efficient work. A portion of this preparation, moreover, can be best given for nearly every occupation in the school, and that portion should be the heritage of every child.

But hundreds of thousands of children must, as a matter of fact, under our present economic conditions, go directly and immediately from the compulsory school period into the process of earning a living. And the demands of industry are such as to take practically all the time and strength of these young people from the very moment of assuming this new burden.

It lies in the interest of the community, looking upon these children as mere instruments of production, regarding them as mere means of increasing the national wealth, to see that conditions are such as to make them ever more efficient elements in our scheme of national production. This means that the school system must provide some systematic, continuation school opportunities; and if necessary that the laws regulating the labor of youth shall be so changed as to provide an opportunity for all young people, from the completion of the compulsory school age and for at least two or three years after, a chance to get that benefit which comes

from the assistance which a well organized school agency can bring to them, in the form of definite school instruction. This means, of course, a radical and pronounced, and withal expensive, addition to our educational system.

I would not have you understand that I believe that a systematic school education is the only training of value for the youth of a country in preparing them for their work as productive agencies. Far be it from me to maintain any such proposition. I have seen many cases of children who in my opinion would have learned far more on the farm, in the shop, and in the office than they were learning at school. On the other hand, there is not a single occupation which requires skill, industry, and strength, in the training for which the school, if properly conducted, cannot contribute a more efficient element than any other agency at work now in our society; and my proposition is that our educational system be so organized that this element can be introduced into our school system in the first place, and into our industrial system in the second place.

What I have said thus far in regard to the elements which enter into a comprehensive system of national education, applies to all modern nations alike,— to England, France, and Germany, to every civilized country of Europe or of Asia.

But this is especially true in the United States today. We are trying to be a republic. We are trying to develop a democratic state. We are far from having reached any such consummation, but at any rate we are working toward it; and with every passing decade I believe we are making some progress in spots; and if in some places there seems to be deterioration or retrogression, owing to peculiar circumstances, yet in others there are evident signs of rapid evolution toward higher things.

Now no state can, politically speaking, be a true democracy, unless it has also become a true democracy *industrially* speaking; and one of the elements of a true democracy, industrially speaking, is an opportunity for every child to develop the industrial capacities within him to the very highest possible extent. This cannot be done unless aside from his fundamental education involved in the three R's, and the things which go with them, is also given a chance for the acquirement of technical skill in connection with intellectual development, so that a combination of industrial facility with a developing brain and a developed body may be effected.

Such a system of education is especially necessary in the United

States today because of the terrific strain to which our institutions and our life are being subjected by the enormous immigration into our body politic and body social from nearly every land under the sun.

We do not yet know very much about the effect of the mixture of nationalities upon national progress. We do not even know enough about the laws of biology to determine whether the outcome of such a mixture will be good or bad; but one thing I think we can be perfectly sure of, and that is that the inpouring of these enormous masses of people of such varying intellectual standards; of such varying ideals, political, social, and religious; of such physical differences—must threaten in the most marked way the ideals and practices and institutions of this great republic. The ultimate outcome may be good, for I am one of those who recognize very distinctly that the ideals of some of these immigrants are in certain directions higher than our own; that they are bringing to us qualities in which we are defective; and I have great hope that, in the long run, great good will come out of this accession to our ranks. But in the meantime everything threatens to become more or less unstable. It becomes more difficult to forecast what is going to happen under a given set of conditions; and in all this development a comprehensive system of national education is needed, a system which will take hold of everyone of these foreigners and of his children and work them over and digest them, so to speak, make American citizens of them, enable them to comprehend our history and our ideals, help them to appreciate our standards, and, if theirs are higher than ours, help them to make these effective. In all this work nothing is for an instant to be compared in effectiveness to such an educational system as I have been outlining, a system which will actually take hold of every child; will give him the elements of a common education, and will train him for efficiency in American life and industry.

Friends, we are very prone to brag on our educational system and our great facilities, but it does not do for us to close our eyes to certain plain and simple facts; and on such an occasion as this we ought to consider them with care. The fact is that no civilized nation has within its midst any population of equal numbers so sunk in ignorance, so beyond the reach of modern educational influences, as the negro population of the United States, particularly in those sections where, owing to their numbers, they practically become a dominating element,—not dom-

inating in the sense that they formally control, but dominating in the sense that the whole social and educational and industrial policy must turn around them, and reckon with the facts of their intellectual and moral development.

The industrial training of the Southern negro is one of the fundamental national needs of this great country. But it isn't a thing which merely concerns Louisiana or Alabama or Georgia or Carolina. It is something which affects the interest of every part of this great nation.

Owing to social conditions it is necessary for the South to provide two entirely different, distinct, though parallel, educational systems. Now it is simply impossible for the Southern people to provide two efficient systems of education. The burden is too great. The nation ought not to ask it of it. The nation ought to insist that this problem be taken up and solved, but it ought to be willing to help bear the burden of its solution.

But aside from the negroes, I think it is also safe to say that there is no population of equal promise, of equal abilities, so devoid of educational facilities in any large civilized country as are the mountain whites along the Appalachian Mountain chain, and into the valleys and over the mountains of that great region. Here is a population of extraordinary value from an industrial point of view, if it were made available for national development. The men whom these people have contributed to the life of America are an illustration of the wonderful stores of unused ability upon which the nation has not drawn at all. It would be a good investment for the United States of America as a nation to put at national expense into this region an efficient educational system, even if the states concerned did not contribute a single dollar to it. The educational condition of the Southern negro, the educational condition of certain portions of the Southern whites, is a reproach to the American nation.

But these two striking cases do not by any means exhaust the illustrations of my proposition. In many respects, in spite of all our great development, in spite of our growth, of which we may be proud, we are still lagging behind not only our own possibilities, but the actual achievements of other nations. The rural schools over a large extent of the wealthy Northern States are taught by a more uneducated and a more inexperienced class of teachers than would be accepted as satisfactory instructors of the young either in England, France, or Germany. And even if

we go into our large cities, under the most favorable conditions, we shall find that we have only begun to make progress in the direction of the technical training of our youthful population, which I have indicated as a necessary element in such a scheme of education as I have proposed.

Now my next proposition is that a system of education which is to accomplish the things I have sketched out, and really become effective in this large sense for an increase in national production, must be national in scope. That is, it must reach everybody throughout the entire extent of national territory. It must be national in its support, that is, the nation must assist in carrying the burdens of such a scheme, and not leave it altogether to the locality or the state; and it must be national in its ideals. In other words, it must have before itself as animating it, underlying it, permeating it, crowning it, if you will, the idea of developing to the highest possible extent the nation whose instrumentality it is.

We have thus far, with some exceptions which I shall note later, depended for the evolution of our educational system largely upon the good will and public spirit of private benefactors, God bless their names! and upon the more or less haphazard inclination of localities or states, spurred on in certain directions as they have been by national legislation.

Now we cannot safely rely upon the desire of the local community to work out an adequate educational system. Our history has shown that there have been whole states, which for long periods of time, have done absolutely nothing toward the development of an adequate educational system. There are today communities in every American state which, if they were permitted by law to do so, would practically abolish even the elementary school, which gives the modicum of opportunities, characteristic of a backward, one-room country school. We must as a nation have a definite policy looking toward the development of our educational facilities, if we are within our day and generation to see results at all commensurate with what would be perfectly possible under the inspiration and working of such a system.

It is furthermore not fair to insist that the locality or even the state shall bear the entire burden of such an educational system. There is no function which has been thus far left or delegated to the locality or to the state more truly national in its scope than is education. The remotest school district in the mountains of Georgia or Tennessee may by great sacrifice support

a school in which some of the brightest children of their generation shall be educated, children who on growing to maturity move away into some other district, some other country, some other state, and bring into the particular locality in which they may finally settle all the advantages which this educational process has brought to them. How many of our western cities have grown strong because of able and educated men who have come into them from the districts of New York or New England! How large a part of the funds of the New England country schools for the last fifty years have gone for the education of men whose contribution to the locality in which they lived and to the nation came not through New England at all, but through Illinois, and Wisconsin, and Minnesota! In fact no one can tell what particular portion of the country will profit most by the fact that the people in some remote school district of Pennsylvania have taxed themselves to the limit for the purpose of training in the best possible way the children of that district. One may safely say that in all probability the chief advantage would rather accrue to some other district than to that which made the sacrifices. Now as long as that is true, here is a logical, or ethical, reason, if you please, why a part of the expense of the local school and the local school system shall be borne by the nation.

This would be still truer of this comprehensive system of national education which I have been discussing; for in proportion as the expense increases, in proportion as the service of the school becomes larger, in proportion as it serves a greater range of human ability, does this principle which I have referred to hold good, that the results of this training accrue, in all probability, to the advantage of some other locality, some other state, some other section of the country.

There is another reason already noted in the case of the South why the nation must assist in the development and support of the kind of system which I have been describing, and that is the simple one that many of the localities, many of the states, cannot of themselves raise the necessary funds to establish, develop, and maintain such a system of education. There are many sections of even the wealthiest portions of the country, the states north of Mason and Dixon's line and east of the Rocky Mountains and beyond the Cascade range, many localities which without the aid of the state, in large measure, could not possibly undertake to raise the funds by any reasonable system of revenue open to them,

which would be necessary for this kind of an educational system.

To the federal government was assigned when it was organized many of the most fruitful sources of revenue. To the states were left many of the most burdensome items of expenditure. The nation may, by a national revenue system, raise certain funds far more easily, with less burden to the individual and less burden to industry, than they can be raised either by the state or the community. A reasonable distribution, therefore, of public burdens between the state and the nation would call for such a readjustment of the burdens of this educational function conceived in this larger way.

The locality should do its part; the state should do its part; the nation should do its part, toward raising funds necessary to maintain this comprehensive system of national education.

There is another reason, an important one too, why the nation should make its contribution to this educational function; and that is that as education is in essence a national function, so it ought to find a corresponding external recognition of that fact in the national budget. In this way education becomes the subject of national discussion. It assumes gradually the relative importance which it ought to occupy as a national issue in the minds of men. And when the subject of education and what the nation ought to do for it becomes the topic of congressional debate, and when once a year the question is raised how much the federal government is contributing or ought to contribute towards this purpose, when the question is discussed how efficiently this money is used, we gradually secure from the public that attention to the importance of education as a fundamental national issue which can come in no other way. In England, France, Germany, and now in all the other civilized countries including Russia, education has become a national issue. The platforms of great political parties are carefully examined by the thoughtful portion of the community, to see whether they propose to provide adequate assistance for the support of education; and in Germany practically the same thing is effected by the fact that Prussia is so overwhelmingly the German Empire that the discussion of educational questions in the Prussian diet attract almost the same attention that they would in the Imperial diet itself.

Now one may raise the question, what is a practical plan, and what do you propose as a positive concrete step which may be taken in this direction?

My proposition is very simple: that the federal government shall grant to each state in the Union a sum of money equal to one dollar per annum per head of its population for the support of elementary and secondary education, that is, for the common schools; and that this money shall be expended for the purpose of strengthening what, for lack of a better term, we may call "practical" education, that is, in agriculture, the mechanic arts, the trades, domestic science, commerce and business, etc.

This would represent a contribution from the federal treasury toward the support of elementary and secondary education of approximately one hundred million dollars a year,—less than the amount given to the building of a navy, far less than the amount given to general military purposes, a sum which many people would think so small as compared with the expense of such an educational system as this that it would hardly be effective in a large way.

Now the objections to a proposed grant of this kind are obvious and potent. That they are really potent is evident enough by the fact that in spite of more or less discussion of this subject for fifty years past we have not yet made any very great progress toward bringing it to pass. The first argument which naturally suggests itself is that education is not a federal function. If by this is meant that the constitution of the United States does not mention the support of elementary and secondary education as one of the functions of the federal government, there would be, of course, no discussion. If, however, is meant that this is not *properly* a function of the federal government, that is surely begging the question, since that is one of the points to be established. I think the argument which I have made as to its necessity for the national welfare, as to the national benefit from the education of every individual child along the lines I have suggested, and the impossibility of securing the benefits of this education to the communities which have had to bear the expense, is a satisfactory answer.

It may be said, moreover, that the federal government from the very beginning of its existence has looked upon education as in a peculiar sense something which the federal power must, within the limits within which it was content to act, have a special regard for. You will remember the famous declaration involved in the ordinance of 1787 in which Congress declared that the promotion of education was one of the fundamental purposes of government.

When later this territory was divided into states, the federal government gave, from lands which belonged to it, large endowments for the purpose of assisting the localities in the further development of the schools and for the purpose of stimulating local and state activity in the direction of developing and supporting schools. The federal government continued later this same policy of large endowment of education within the states by these grants of federal land: and finally in the later legislation it did not content itself with giving these lands to the states for the purpose of education, but it made it a condition of admission of these states to the Union that they should administer these funds for this purpose and for no other.

I think it is beyond doubt that the policy of the federal government, in thus granting to these newer states these federal lands, has brought about the wonderful developments in popular education which we have thus far achieved in this great Mississippi Valley and in the states beyond the mountains. It was not merely, as I have suggested before, because these lands were given to start these schools, for in many cases the states in the first instance, not being inclined to education, dissipated these funds, used them for other purposes, and covered themselves with disgrace for the flagrant way in which they disregarded the implicit pledges involved in the acceptance of these lands for educational purposes. But still more than the positive support which these lands gave to common school education was the stimulus, was the example, held continually before the minds of the community, set by the federal government, of giving a portion and a considerable portion of the public wealth to these purposes. It was a constant reproach to the people of any state who dissipated these funds or used them for other purposes, that the federal government had set apart these lands out of the territory of the nation for public education. The example was a constant challenge to the people of every state that they should also give attention to these same questions, and that as their wealth and strength increased they should develop ever more strongly and completely this system of popular education.

On the whole they have done so. The day of squandering these great endowments of education has passed away, though in every state where this fund is great the public must safeguard its interest with great watchfulness.

But the federal government was not content with giving these

lands to the states for elementary education. It went farther. It gave to each of the states certain lands for the development of higher education, the so-called college and seminary funds.

Finally, after long discussion and long agitation stretching over more than thirty years, the federal government in the year 1862 granted to each state in the Union thirty thousand acres of land for each senator and representative in the federal congress for the purpose of establishing in each state a college for the promotion of agriculture and the mechanic arts. This was a grant not merely of public lands to the states within which the public lands were located, but it was a grant to each state in the Union permitting it to locate its lands where it best could under the provisions of the law.

A generation passed away and the federal government appropriated in cash to each state in the Union, March 2, 1887, the sum of fifteen thousand dollars for the development of an agricultural experiment station, this money to be paid out of the proceeds of the sale of public lands. Only three years later, August 30, 1890, the federal government returned to the same proposition and then for the first time, with the utmost directness, it appropriated money from the federal treasury for the support of these colleges, out of funds not otherwise appropriated. And thus, in form as well as in reality, the federal government has committed itself to the proposition of supporting higher education along practical lines, out of the federal treasury, within the limits and under the auspices of the states.

This has turned out to be one of the greatest endowments of higher education ever made by any government. And it has turned out, I believe, to be one of the most beneficent series of grants made by any country in the support of higher education. And it has demonstrated several things. First, that a comparatively small grant from the federal government for a given educational purpose, so far from laming local effort or local initiative, will greatly stimulate the efforts of localities and of states to develop still further the education which is thus endowed.

According to the last report of the United States Bureau of Education, sixty-nine institutions were receiving the benefits of this congressional appropriation. The total appropriation made by the federal government, exclusive of that for the agricultural experiment stations, was somewhat less than two million dollars per year. The total expenditure of these institutions was over

eighteen millions of dollars. In other words, for every dollar given by the federal government the states have contributed, roughly speaking, eight dollars in addition. A more striking illustration of the stimulating effect of a wise grant of public money for a definite purpose has, I think, rarely been afforded.

The contribution of this system of schools to the wealth of this country is something which can hardly be estimated. It has first of all trained the youth of the country for practical occupation in the field of agriculture and engineering in such a way as to raise the level of the practice of these professions throughout the United States.

It has also contributed very greatly in addition to our knowledge of the conditions under which a productive agriculture and a productive industry may be developed. It has been estimated that the benefits of the discoveries emanating from these centers of agricultural and engineering education has been such as to give a positive increase in national wealth in every single year larger than the total cost of all these institutions from the beginning to the present.

Surely in the light of these facts it cannot be said that, practically speaking, education has not been recognized as a function of the federal government. As a matter of fact, it has been so recognized to such an extent as to establish the principle beyond question.

But after all, the federal government has done comparatively little aside from the land grants—which, it is true, were an important contribution—to stimulate, or aid in, the support of elementary or secondary education. It is interesting to note that this grant on the part of the federal government to higher education was supplementary to the work which was doing in the states themselves in this field. It did not undertake to endow the American college of the traditional type or to endow professional education. The men who were behind this measure seemed to think that those particular phases of national education would take care of themselves. The grant was made definitely for the purpose of developing the practical side of higher education, of training for callings and professions for which no training had been, up to that time, provided in the educational system, either public or private.

This was a wise measure. First of all it was a strategic move to ask the federal government to give money in aid of education

in a field in which education had been sadly neglected and in which it was not likely to be developed within any time which men could foresee, unless the federal government gave this aid.

The same thing is today a strategic move, namely, we should ask for this money from the federal government for the purpose of developing the practical side of education in our elementary and secondary schools. It should be strictly a supplemental grant, in aid of this work, not an attempt to assume the responsibility of its entire support.

There is little doubt that if such a grant were made it would stimulate the development of elementary and secondary education along the lines thus far suggested, in a remarkable way and with more astonishing results than have been accomplished in the field of higher education. To accomplish this result of stimulation, it is not necessary that the federal government should assume the entire burden, or that it should do more than pay the comparatively small part of what would ultimately be its share of the expense.

One other objection, of course, to this kind of proposition is very commonly made and occurs to everyone. Will not such a scheme as this strengthen enormously the tendencies which are making for centralization in the United States? Will it not strengthen greatly the power of the federal government and diminish still more the activity and energy and initiative of the commonwealths themselves?

The proposition is that this money be given to the states to be expended by them for this purpose. Of course it would be necessary to utilize that amount of federal—I will not call it supervision for it is not that—but federal bookkeeping which would make sure that this money given for this purpose should be used by the states for the purpose for which it is given. Otherwise it should be left entirely to the states to manage, as the law has left it to the states to determine the manner in which the funds shall be expended which were granted for the colleges of agriculture and the mechanic arts.

That such a measure would enlarge the view of the federal government, so to speak; that it would bring into the range of federal thought and federal activity the subject of education in a large way, there is no doubt; and that is one of the strongest arguments in its favor. If this appropriation of federal funds in aid of elementary and secondary education were incidentally to

become so large as to diminish somewhat the amount of money wastefully spent upon so-called internal improvements, or if it would diminish or at least call a halt to the increasing expenditures for the army and the navy, this to my mind would be an additional reason for the adoption of such a plan.

You will remember that we had twenty-five years ago a similar proposition before the federal government, known as the Blair bill, under which it was proposed to distribute fifty millions of dollars to the states in aid of elementary and secondary education. I was a warm advocate of that proposition at that time and I had a good illustration not long ago of how the deeds of men live after them, when in an eastern paper some reference was made to me as that crank who had urged the adoption of the Blair bill.¹

I remember a conference which I had during that time with Mr. Godkin, the editor of the *New York Nation*, one of the most trenchant political writers of the time, and one who was opposed to the appropriation contemplated by the Blair bill. He objected that the national expenditure had already run to such limits as to threaten national bankruptcy, and that the nation could not undertake such additional expenditure of this sort without seriously impairing national credit. I urged upon his attention an entirely different view, namely, that we might determine, to some extent, if we took hold of the matter in earnest, the distribution of national expenditure. We might determine that some of it should be spent for education instead of having it all spent for war; but that the circumstances of the time indicated as clearly as anything could that expenditure was bound to increase, and no amount of effort was going to prevent a large and continuous increase. We might, by taking thought, get those larger expenditures made on behalf of important things, but if we did not do that the expenditures would go for impossible harbors,

¹Still earlier a proposition was made by James G. Blaine to appropriate the income of the internal revenue tax on intoxicating liquors, estimated at \$60,000 per year, to this same purpose. I argued in favor of this policy in the columns of the *Illinois State Journal* published at Normal, Illinois, in the October and November issues of 1882 and January and February 1883. The *Chicago Tribune* in December, 1882, strongly endorsed editorially the position of the *Illinois State Journal*. And the Illinois Teachers' Association on December 29, 1882, passed resolutions favoring the project. Later, on December 29, 1883, the *Philadelphia Press* gave space in its columns for a detailed argument in behalf of this measure. But in this case as in that of the Blair Bill itself nothing was finally accomplished in the direction of securing the passage of such appropriation at that time.

and still more impossible rivers; would go for manufacturing cannon which would rust out and become worthless before they should ever be used; would be spent in inaugurating a "world policy" which was sure to come if the nation continued so great and the revenue continued to grow.

I believe the same thing is true today. One of the arguments, in my mind, for the assumption of a part of the burden of national education by the federal government is that if the federal government assists more fully in bearing the burdens of the nation as it ought to, it will not be tempted to add increased burdens to the nation by wild policies of world adventure, to which it will be tempted in ever increasing extent, as national revenue and therefore the possibility of such interference increases.

Friends, if we could secure the establishment in our day and generation of such a comprehensive system of national education—namely, one which would reach every child, white, black, yellow, rich, and poor, and discover and call forth all his capabilities—and then a system which would go farther and provide for the training of those abilities to the highest possible point, the nation would enter upon a period of increase of national wealth the like of which has never been seen in the history of the world. When all the abilities of the community have an opportunity to be developed and to be employed in the service of the community and in the development of civilization; when the attention of the nation is concentrated upon the development of its own people first of all, and not upon world domination, not upon world influence, not even primarily upon world *service*, but upon the development of its own people and their capacities; then we shall see a new heaven and a new earth; and when we set before ourselves as a nation the problem of developing the bodies, the brains, and the character of our children to the highest degree of perfection, all these other things—national wealth, world influence, and world power—shall be added unto us.

CAUSES OF THE CHANGES IN PRICES SINCE 1896

J. LAURENCE LAUGHLIN

PRICES SINCE 1896

Part I. Commodities

Part II. Securities

Part I. Prices of Commodities

a. Facts: Movement of Prices, 1890-1909

b. Causes of the Changes in Prices of Commodities:

1) The Increased Production of Gold:

(1) Money in Circulation	{	1. Gold	{	1. U. S. Notes
		2. Other Forms of Money		2. Bank Notes
				3. Silver Certificates
				4. Silver Coin
				5. Checks

(2) Bank Reserves	{	1. Gold	{	1. U. S. Notes
		2. Other Lawful Money		2. Silver Certificates
				3. Silver Coin

(3) Credit and Prices

2) Changes in Expenses of Production of Goods

(1) Tariffs and Taxation

(2) Wages, Unionism

(3) Agricultural Conditions

Food, Cotton, etc.

3) Monopolies, "Trusts"

4) General Extravagance

5) Speculation

Part II. Prices of Securities

a. Facts: (1) Prices of 20 Railway and 12 Industrial Securities, 1890-1910. *Brookmire's Charts.*

(2) Specie Reserves

(3) International Movement of Gold

(4) Ratio of Loans to Deposits

b. Causes of the Changes in Prices of Securities

1) Fall in the Value of Gold

The Volume of Circulation

2) Earnings

3) Speculation

Expanded Credit

4) Over-issues

Part I, b, 1). The Increased Production of Gold

1. The Supply of Gold

Table of Production, 1890-1909

2. The New Demand for Gold, 1890-1909

3. Effect of Gold on Prices, 1890-1909

(1) In Circulation as a Medium of Exchange

(2) In Bank Reserves

(3) In Expansion of Credit

I.

The problem before us involves not only a statement of the facts in regard to prices since 1896, and an explanation of the changes—in this case a rise—in these prices, but also the whole theory of prices. At the beginning, moreover, certain ambiguities as to what is to be included in our examination should be cleared up. Obviously we must include in our study not only the changes in the prices of goods but those in the prices of securities. Therefore, as indicated in the accompanying outline, our discussion breaks into two parts, one treating of the prices of commodities, and the other of the prices of securities. Although, in the past, the causes of changes in the prices of goods and securities have been often assumed to be the same, a very casual reflection will show that they are widely different, as may be noted by the causes briefly presented in the outline. A full presentation of all the points raised by this outline would fill a volume; therefore, while the outline may serve as a map of the field, and of the relations of one point to another, it will also serve to indicate to those present the topics which have been passed over for lack of time, and those which have been chosen for examination. For my own part in this discussion, I have chosen to present a study only in Part I, that is, on changes in the prices of commodities; and in Part I, also, I shall attempt to treat of only some of the causes affecting the general level of prices, namely Part I, b, (1), The Increased Production of Gold, and Part I, b, (3), (4), and (5), The Influence of Monopolies, Extravagance, and Speculation. As regards other topics under Part I, it will save time and secure definiteness if the case is stated in the form of propositions without argument.

II.

First of all, this method will be especially useful in the presentation of the theory of prices, since it may be assumed that the members of this Association are familiar with the general monetary discussion. To my mind, the following propositions contain the essence of the theory of prices, on which the causes must be based. As everyone will appreciate, only general statements, without any limiting qualifications to speak of, can be given in so small a compass.

1. The price of a commodity is measured by the quantity of a given standard for which it will exchange.

2. A change of prices may be due to changes in the conditions affecting the supply (thus including expenses of production) of goods, as well as to changes in the demand for and supply of gold. A statistical statement of a change of price is not a statement of the cause of the change.

3. Probably there is not so much difference of opinion regarding the theory of prices as is sometimes supposed. Other causes being supposed constant, an increased supply of gold would tend to raise prices. No one can fail to see that, if by "money" is meant gold, a change in its quantity would, other things being equal, be a factor affecting prices. An increasing demand for gold, however, would work against the effect of an increasing supply. If the new demand offset the new supply, then, if changes of prices occurred, their cause must be sought in the influences touching the producing and marketing of goods.

4. The effective demand for goods (granting their utility) is limited by the buyer's purchasing power. This purchasing power is not identical with the quantity of the media of exchange in circulation, any more than the value of the total exchangeable wealth of the community is identical with the value of the total money in circulation.

5. The general level of prices is not independent of particular prices; since there can be no such thing as a general level, or average, of prices which is not the resultant of a number of particular prices each arrived at by individual buyers and sellers. The causes of price changes must be sought in the forces settling particular prices. This does not exclude the consideration of any causes affecting the value of the standard in which the prices of goods are expressed, because the standard is itself a particular commodity.

6. In particular cases, competitive prices in this country are arrived at by the higgling of the market, which depends on buyers' and sellers' judgment of the demand and supply of the commodity (*c. g.*, wheat): and, when the price is fixed, the credit medium by which the commodity is passed from seller to buyer comes easily and naturally into existence and, of course, for a sum exactly equaling the price agreed upon, multiplied by the number of units of goods. Price-making generally precedes the demand upon the media of exchange, and does not at all imply any necessary demand at the moment upon the standard in which the prices are expressed (*cf.* 10).

7. The offer of "money" for goods is only a resultant of price-making forces previously at work, and does not measure the demand for goods (cf. 6). That is, the quantity of the actual media of exchange thus brought into use is a result and not a cause of the price-making process. The supposed offer of money has no money as its basis, but is only the offer of a purchasing power, previously existing, based on saleable goods, which at the moment of payment appears expressed in terms of the standard. By credit devices the actual transfer of the standard is reduced to an inconsiderable minimum. In reality (as in foreign trade) goods are exchanged against goods.

8. The effect of credit on prices is to be found mainly in banking facilities by which goods are coined into means of payment, so that, expressed in terms of the standard gold, they may be exchanged against each other. Thus credit devices relieve the standard to an incredibly great degree from the demand for the use of gold as a medium of exchange, and thus remove a demand, as trade increases, which would otherwise have enormously affected the value of gold. Thus the effect of credit on the general level of prices in considerable periods of time is shown by a tendency to reduce the demand on the standard gold, and hence to prevent the tendency toward falling prices.

9. A general proposition is that banks are limited in making loans by the possession of capital, a bank of large capital and deposits being able to make large loans, a bank of small capital and deposits, small loans. A second proposition is that the demand for legitimate loans varies with the exchanges of goods and collateral and the opportunities for investment. With an increasing activity in business, however—either sound or speculative—the expansion of loans is limited by the resources of the bank. Next, a bank trying to carry a certain amount of loans, must hold a specified proportion of reserves to demand liabilities under the rule of banking experience or law. The amount of its capital and the funds left with it determine the relative size of its loan item; and the sum of its loans and resultant deposits determine the amount of its reserves. The reserves of a bank are thus a consequence of the loan operations. This conclusion, however, as it affects the practical problem of the present day, is not, in my opinion, invalidated by the conceivable cases arising, when business tends to outrun banking facilities, in which anything that makes increasing reserves possible would increase the

power of the banks to lend. When gold becomes increasingly abundant, the banks having large resources more easily get the gold reserves needed for their operations. It still remains true that the fact of an increased supply of gold does not of itself increase loans, unless conditions of business demand an increase in loans. Therefore, the expansion of business is not a necessary consequence of an increasing supply of gold, any more than an expansion of railway traffic is the necessary consequence of an increasing supply of cars. If increasing goods are in existence to be transported, then, of course, there is an increasing demand for cars. Likewise, if there are more bank resources and loans, there is an increasing demand for that which is lawful reserve; from which it is claimed that the use of new gold in bank reserves, under present conditions, is not the significant causal force which expands business and raises prices (although it may be contemporary with it).

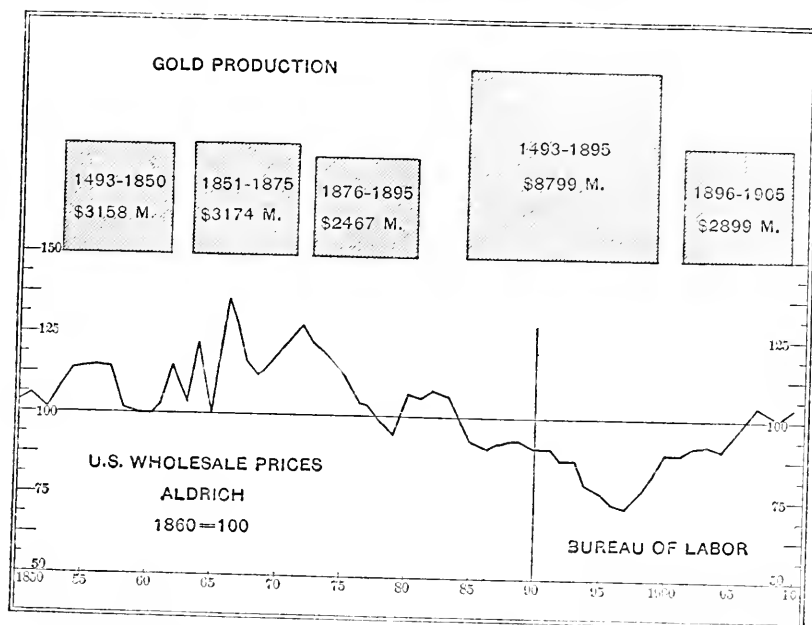
10. The problem of explaining the general level of prices is one of arriving at the adjustment between two terms of a ratio (the standard on the one side, and goods on the other), each of which is influenced by supply and demand. Gold being one, and goods being many, a cause working on gold alone, and important enough to show an appreciable effect, might explain a general movement of prices. In practical operation, however, because of the large existing stock of gold, very considerable additions may take place in the supply of gold without materially changing the world value of gold as related to goods in general. Rapid changes of prices are hence more likely to be due to influences in the market for goods, to speculative changes of demand for goods, or to psychological forces working independently of facts. (See the later discussion of fact.)

III

PART I, A

The facts¹ as to the movement of prices, from 1850 to 1909, in the United States, and the world production of gold in the corresponding years, by periods, are presented on the accompanying chart, so that direct comparisons are made possible. The single line represents the index number of the Falkner table of prices (in

¹ Cf. J. D. Magee, *Journal of Political Economy*, January 1910. For the annual production in detail see Mr. Magee's table.



the Aldrich Report), until 1890, to which is added the index number of the United States Bureau of Labor reduced to the base line of the former. The situation from 1850 to 1890 is included in order to give the historical means of comparing causes and effects for the same general groups of forces working in periods of both falling and rising prices. With these facts at hand we may now proceed to a study of the causes of the movement of prices.

IV

PART I, B, (1)

The facts¹ as to the production of gold are here summarized as follows:

SUMMARY OF PRODUCTION OF GOLD BY VALUE

Period	
1493-1850.....	\$ 3,158,210,280
1851-1875.....	3,174,005,000
1876-1895.....	2,467,266,800
1896-1905.....	2,899,604,500
1493-1875.....	6,332,215,280
1851-1895.....	5,641,271,800
1493-1895.....	8,799,482,080
1493-1905.....	11,699,086,580

¹Cf. J. D. Magee, *Journal of Political Economy*, January 1910. For the annual production in detail see Mr. Magee's table.

V

In the problem of discovering the causes of changes in the level of prices, it is necessary first to reach a conclusion as to those causes which operate on the gold standard in which our prices are expressed. By so doing we may locate the general level—so far as the standard is concerned—or the one thing which might work as a cause common to all goods. The relation between gold and goods might be illustrated by the familiar mechanical illustration: a rod balanced on a fulcrum, on one end of which works the forces affecting the value of gold, and on the other end the forces affecting the value of particular goods. The relation between goods and gold being a ratio, as one end of the rod goes up, the other necessarily goes down.

There are, as we all know, various forces at work to produce the resultant price level. We may here start from a proposition on which we can all agree. An increase in the quantity of the monetary standard in the world—such as gold—would tend, *other things being equal*, to lower its value and thus raise prices. In trying to find the causes in the price level at any given time (as in 1896-1909) it is necessary, therefore, after stating the facts as to the increase of gold, to examine into the influence of "the other things."

To begin, we may take up the demand for gold, which, of course, is both monetary and non-monetary. First as to the non-monetary uses, such as abrasion, shipwreck, and disappearance in the arts: The statistics of consumption in the arts are unsatisfactory: at the best they are only estimates. Although the total production of the world, 1493-1850, was \$3,158,000,000, there is no evidence as to the available stock in 1850. My belief is that there was not more than \$2,000,000,000.² In the period of 1851-1895, the production was \$5,641,000,000, and the consumption in the arts, at the average rate of \$50,000,000 a year requires a deduction of \$2,250,000,000, which leaves \$3,391,000,000. The arts in recent years are estimated to use more than \$100,000,000.³ In the period, 1896-1905, if \$1,000,000,000 be deducted from the production of \$2,899,000,000 we have \$1,899,000,000. Thus the total available stock in 1905 would be about \$7,690,000,000. The production of the last four

² There is a possible error here of perhaps \$500,000,000.

³ The estimate for 1908 is \$113,996,000. Cf. U. S. Report of Director of Mint, 1909, p. 80.

years, 1906-1910, is about \$1,600,000,000, or, less the consumption in the arts, about \$1,200,000,000.

The monetary demand for gold, on the other hand, has shown certain definite characteristics. Whether it be prejudice, or enlightened business judgment, the commercial nations of the world have shown a persistent and continuing disposition to adopt a gold monetary system as soon as their own means, or the forthcoming supply of gold, has made it possible. The United States led in 1853, when we declined to change the ratio in order to bring silver into circulation when only gold was in use. From 1871-3, Germany, the countries of the Latin Union, Austria-Hungary, the United States (with the resumption in gold in 1879), and India (in 1893), in response to the preferences of the commercial world, placed themselves on the gold standard by legal enactments. The demand for gold all through this period was based upon considerations independent of the movement of prices. For this was a time of falling prices when much was heard of the appreciation of gold and the need of silver. In spite of this tendency toward falling prices, the movement toward the adoption of gold went on. Moreover, as may be seen by the chart, the on-coming supply of gold in the earlier period was very large in comparison with the existing stock (the percentage being much larger than in the period of 1896-1905). But it was precisely this large new supply of gold which enabled the commercial nations to gratify their desire for what they believed was a more stable standard.

As we enter the present period (1896-1909) we find this momentum towards the gold standard still in force; and other countries in emulation planned to put themselves on an equally stable standard with those whose means had permitted an earlier action—quite irrespective of the fact that this last was a period of rising prices, while the former was one of falling prices. In this period, Russia, Japan, various states in South America, such as Peru, Argentina, and Brazil, and recently Mexico, have emphasized the movement away from silver to gold. Moreover, as backward lands, like Turkey, parts of Asia, Egypt, and various districts of Africa, have developed their resources and increased their trade, they have taken on gold in their monetary systems. With increasing trade also there are more exchanges of goods; hence, even in countries (like Great Britain and the United States) that do not use gold to speak of, except in reserves, there are

increasing loans and deposits and thus a demand for more gold reserves. Consequently, in countries long ago established on the gold standard there will be a steadily increasing demand for gold as exchanges expand. We find thus a special characteristic of the demand for gold (certainly not existing in the demand for silver). The power of developing countries to soak up new gold is as marked a part of present conditions as is the power of a porous and sandy soil to soak up a heavy rainfall. We must, therefore, take full account of the noticeable fact that the recent demand for gold seems about to keep pace with the new supply; that a shipment of gold from the mines to London is today eagerly competed for, not only by European countries, but by Egypt, India, Turkey, Argentina, and Brazil.

Consequently it may be of interest to see which countries have taken the largest amounts of gold into their stocks since 1895:

United States.....	\$ 994,000,000
Russia.....	427,000,000
Germany.....	419,000,000
South American States.....	213,000,000
British Empire.....	194,000,000
Austria-Hungary.....	163,000,000
Italy.....	160,000,000

Besides the demand for gold in the arts, and the apparent monetary demand, as thus already presented, we must not omit to take into account also the large stocks of gold held by banks and institutions which publish no statements. In the hands of large private institutions like those of the Rothschilds, Bleichroders, and others, great amounts of gold are carried. It is from such stores that the needs of states, such as Austria-Hungary, France, Italy, and even the United States (in Cleveland's administration), have been supplied without drawing down visible reserves.

Thus far, then, we have examined the one factor of demand for gold, among the "other things" (which were supposed to remain equal). There is abundant evidence to show that the demand for gold, in this recent period of rising prices (1896-1909) has been as strong as, or even stronger than, the demand for gold in the previous period (1873-1896) of falling prices.

VI

It looks very much as if we must seek for the causes of rising prices since 1896 in some of the "other things" not yet examined.

There is no time, however, for extended discussion on these points [such as Part I, b, 2), 3), 4), 5)].

In regard to Part I, b, 2) the effects of Tariffs and Taxation, Unionism and higher Wages, and changing Agricultural Conditions in increasing expenses of production in all industries are so patent as to require no enlargement. Immediately after the passage of the Dingley Act in 1897, a large list of articles rose in price precipitously. Moreover, just so far as higher money wages for the same work, or the same money wages for a reduced number of hours, have been granted without a corresponding increase in the efficiency of the labor, the expenses of producing goods in general—and consequently prices—have risen. But, without doubt, one of the most important factors in raising prices—directly and indirectly—has been the increased price of food due to the changing conditions of agriculture. This most influential cause of higher prices is one of the “other things” which has been at work quite independent of the quantity of new gold. Moreover, the indirect effect of high prices of food produces the most serious practical problem. It wipes out all the gain of previous increases of wages, and drives laborers to repeat their demands for higher pay, thus working again to increase expenses of production. It is not too much to say that the gains of industry, shown by the fall in prices, as they stood about 1890 have been lost to us by the high tariffs of 1897 and the wastes of bad farming and the recent high costs of agriculture.

Our analysis would be inadequate, however, if we stopped here with our examination of expenses of production. The really practical problem is still before us in trying to analyze the forces at work fixing prices in that vague and dangerous margin between actual expenses of production and the prices in fact paid by the consumer. It is in this margin that we find in operation the “other things” mentioned in Part I, b, 3), 4), and 5). On these points I must necessarily be brief.

The whole *raison d'être* of monopolistic combinations is to control prices, and prevent active competition. As every economist knows, in the conditions under which many industries are today organized, expenses of production have no direct relation to prices. In such conditions, there is a field in which the policy of charging “what the traffic will bear” prevails; and this includes industries that are not public utilities.

Furthermore, Part I, b, 4), we must face the fact of increasing riches not only in this country, but all over the world. New wealth makes a liberal spender. The retail dealer finding his expenses increasing and—even when they are not—tries the experiment of charging his richer customers an increasing price. The newly rich pay and do not feel it. But what can the poorer unorganized buyer do when retail prices are raised? What can he do if his meat bill, or his plumbing-repairs bill, rises enormously? The extravagance of the rich has increased the cost of traveling, the rates at hotels, the fees, the luxury of steamships and automobiles, the consumption of fruits and vegetables out of season once never thought of, and has generally raised the standard of expenditure. Those of smaller income find they also must pay the higher prices. Thus we have reached a point where we have to pay almost whatever anyone asks. Organized buyers are the only offset to organized sellers.

Moreover, rising prices due to high expenses of production, or to combinations of sellers, present a paradise for speculation (Part I, b, 5)). A movement upward based on facts can be easily converted into a further rise based only on speculative manipulation. A rise of prices which brings large profits to a combination, thus directly affects earnings and gives especial opportunity to speculation in the securities of industrials. Hence, the field of speculation spreads from commodities (Part I) to securities (Part II). The facts as to the movement of prices of securities are well shown in Brookmire's Economic Charts since 1885: and, while the presence of gold serves as a fund of lawful money in reserves, the spread of speculation has gone on seemingly unaffected by the new supplies of gold. That is, speculative conditions may arise and disappear antecedent to and seemingly independent of the gold supplies.

RECENT CHANGES IN PRICE LEVELS AND THEIR CAUSES.

By IRVING FISHER.

I find myself unable to agree with most of the positions taken by Professor Laughlin in his able paper. In my opinion the old quantity theory is in essence correct. What it needs is to be restated, not rejected. I have attempted to make what I believe to be the needed restatement in a forthcoming book on "The Purchasing Power of Money", Chapter XII of which I have had reprinted for distribution at this meeting.¹ I shall confine myself chiefly in the paper this morning to describing the contents of this chapter. The chapter does not attempt to discuss the theoretical determination of price levels, as this has been discussed in previous chapters. The aim, rather, is to work out quantitatively the statistics pertaining to the rise of prices during the last fifteen years.

Before, however, considering these statistics I may state, in a few words, my creed as to the causation of price levels. This is, according to my view, entirely distinct from the causation of the price of any individual commodity. It is just as impossible to determine the general level of prices by the supply and demand of individual commodities as to determine the general tidal level of the ocean by the winds affecting individual waves. Waves and tides are distinct and require distinct explanations. Likewise prices and price-levels are distinct and require distinct explanations. Just as each wave presupposes a general tidal level with reference to which it is measured, so the supply and demand of each individual commodity presupposes a general level of prices. Each supplier and demander expresses his supply and demand in terms of money and he does so on the assumption of a given purchasing power of money. With a change in the purchasing power there will be a change in his particular supply and demand. Thus the discussion of individual prices presupposes a general price level. The proper order of study is from a general price level to particular prices rather than from particular prices to a general price level.

¹ By the courtesy of the Macmillan Company we are permitted to publish this material and to make use of the diagrams contained therein.

Supply and *demand* are terms which help in the discussion of individual prices but not in the consideration of the general price level. The latter is determined in a simpler way, namely, by the equation of exchange, $MV + M'V' = PT$. This equation expresses algebraically the old quantity theory of money, with some elaboration. It is discussed in Professor Simon Newcomb's able and interesting work "Principles of Political Economy", in President Hadley's "Economics", in Professor Kemmerer's "Money and Prices", and elsewhere. In this equation M signifies the quantity of money in circulation; V , its velocity of circulation, or rate of turnover per annum; M' , the volume of deposits subject to check; and V' , its velocity of circulation, or rate of turnover per annum. T signifies the volume of trade (considered irrespective of the price level; in other words, reckoned for a given price level as an assumed base); and P the general level of prices resulting from the other five magnitudes in the equation. While it is true that the equation does not enable us to judge which of the magnitudes in it are causes, and which are effects, it is possible by other considerations, which I shall not here attempt to discuss, to show that P is the one passive element in the equation—that it is not cause, but effect. Under normal circumstances, and apart from transition periods, an increase in M , or the quantity of money in circulation, will bring about a corresponding increase in M' , the volume of deposits subject to check, but will not disturb V , V' , or T . It follows, therefore, that P must vary in direct proportion to M . All the possible causal relations between the magnitudes in the equation are fully discussed in various chapters of the book to which I have referred, but the upshot of the matter is that the old quantity theory still remains fundamentally true and that, under normal conditions, the general price level will respond in substantial proportion to the volume of money in circulation. This does not assert, of course, that during any historical period M will be the only factor affecting P ; for it usually happens that all of the five factors in the equation which do affect P will change simultaneously. Each of these factors is the result of innumerable antecedent causes but no cause can affect the price level except through one or more of the five factors M , M' , V , V' , T .

One object of this paper is to show historically what have been the changes in all of these five factors during the last fifteen

years, which changes have accounted for the resulting changes in P . The study is similar to that previously made by Professor Kemmerer, but is more detailed and has attained a higher degree of accuracy, due, chiefly, to statistics which have become available since the publication of Professor Kemmerer's valuable book on "Money and Prices."

It thus comes about that all of the statistics for the five magnitudes are new. In particular the statistics for the velocity of the circulation of money are entirely new and worked out according to a method explained a year ago in the *Journal of the Royal Statistical Society* for December, 1909. It is interesting to observe that previously there have been no figures available for M' . The statistics for so-called "individual deposits" are not statistics of deposits subject to check, for they include savings bank deposits, certificates, and other time deposits not subject to check. It is found that the statistics of deposits subject to check are sometimes only two-thirds of the statistics for individual deposits. The statistics for deposits subject to check have been worked out from the monograph by Professor David Kinley on the "Use of Credit Instruments" and from statistics kindly supplied at my suggestion by Dr. A. Piatt Andrew of the National Monetary Commission for the years 1896, 1899, 1906, 1909. For intermediate years the results were obtained by methods of interpolation.

As the methods of computing these five magnitudes are completely described in the reprint which has been distributed, it will not be necessary for me to go into details. When these five magnitudes have been computed it becomes possible to reckon what the value of P should be as determined by the equation of exchange, assuming that the theory is correct which ascribes the causation of price levels to these five causes working through the equation of exchange. In other words, it is possible to compute P by the formula

$$P = \frac{MV + M'V'}{T}$$

The resulting value for P can thus be compared with the actual statistics for the price level as shown by the statistics of the Bureau of Labor, making due allowances for wages and the prices of securities. The comparison between these two results for P as directly observed and as calculated indirectly from the five

magnitudes on which it depends may be said to supply a verification, for those who need it, of the quantity theory of money, and for those who do not, a verification of the statistics themselves. The results agree remarkably well as will be seen presently.

There are, however, discrepancies and it is therefore necessary to correct the various magnitudes so as to make them harmonize with the equation of exchange. To secure the most probable results these corrections should be made in all six magnitudes. It is found that the correction, or doctoring, in most cases is usually very small—in the majority of cases not being over one per cent and in almost all instances being less than two per cent. The results are shown in the following diagrams. The

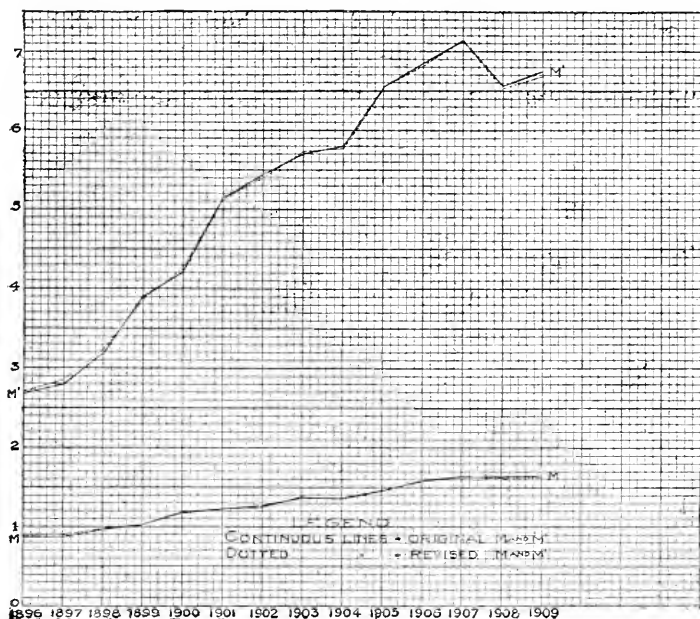


FIGURE 1.

first shows in the continuous lines the values of M and M' as first calculated and in the dotted lines the corrected values. Evidently the dotted line nearly coincides with the continuous line. In the next figure, which shows the corresponding results for V and V' , the continuous line gives these as originally calculated

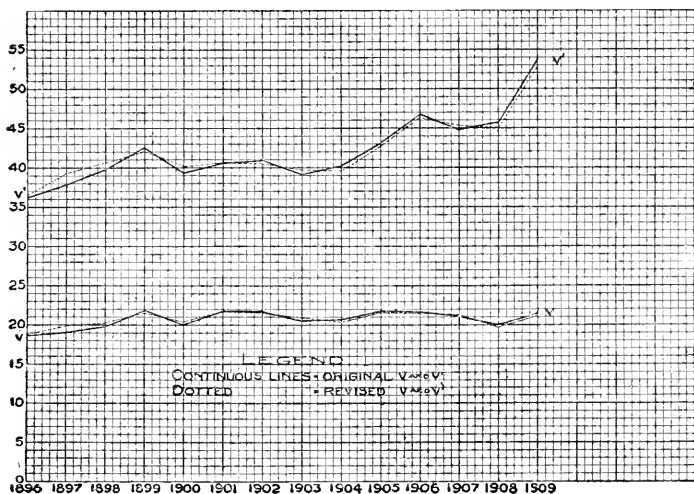


FIGURE 2.

and the dotted lines show the slightly different results as finally corrected. The third figure shows T as originally and finally calculated; and the fourth figure shows P in three lines. The

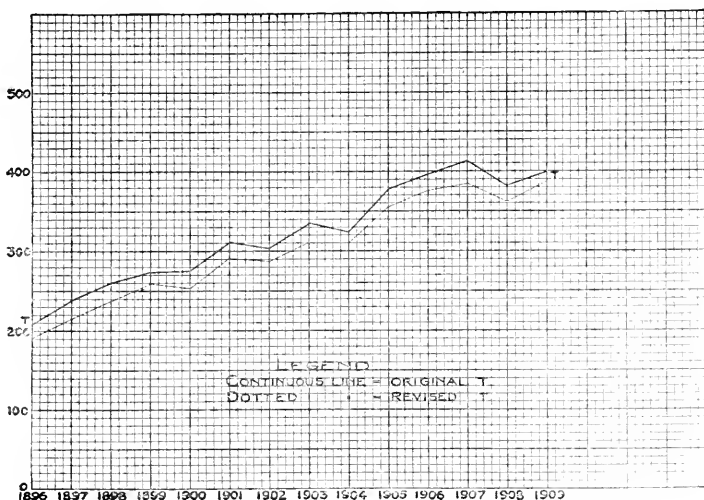


FIGURE 3.

upper line gives P as directly computed from statistics; the dotted line shows this value as finally corrected; while the bottom line shows what this value would be if calculated indirectly from the

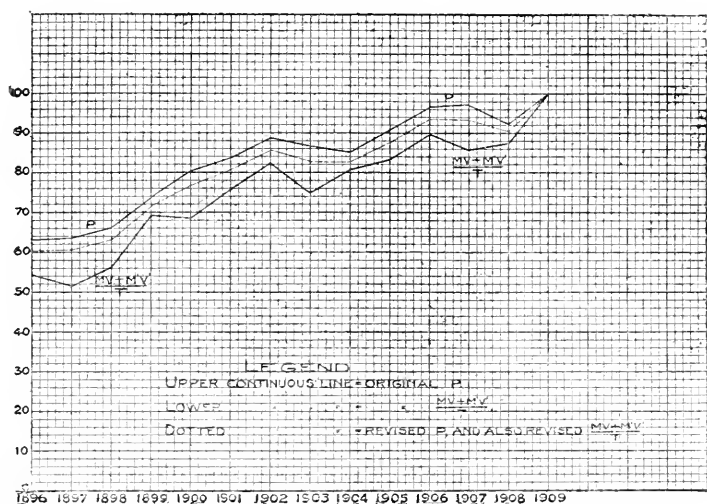


FIGURE 4.

other five magnitudes in the equation of exchange. The parallelism between all three lines is evident. The values of the upper and lower lines, or, in other words, the values directly and indirectly calculated, are very close. The application of Karl Pearson's coefficient of correlation shows a high degree of correspondence between these two curves, a correspondence considerably higher than that found for the somewhat similar curves of Professor Kemmerer.

In order to set forth the statistical results which have been given in a manner which will relate together the six magnitudes in the equation of exchange, I have adopted a mechanical picture of the equation of exchange as shown in Figure 5. In this figure

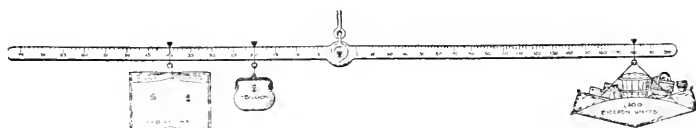


FIGURE 5.

M , the quantity of money in circulation, is represented by a purse; M' , by a bank book, both hanging at certain distances from the fulcrum, the distances corresponding to their respective velocities of circulation. On the right in a tray are hung the things which are exchanged during the year, while the distance from the fulcrum at which this tray is hung represents the price level.

This mechanical picture shows that an increase in M , that is in the weight of the purse, other things being equal, will require a readjustment of the point at the right at which the tray hangs. It will need to be pushed farther to the right. If there is an increase in M there will be an increase in P . In like manner P will increase from an increase in M' , V , and V' , or a decrease in T .

In figure 6 are shown the changes during fourteen years in all of the six magnitudes— M , M' , V , V' , P , and T . It is shown that the quantity of money in circulation in these years has doubled; the volume of deposits subject to check has about tripled; the velocities of circulation have increased only slightly; and the volume of trade has been doubled. We find that prices rose about two-thirds as a net result of the changes in these five factors, as is shown by the length of the arm at the right. There are interesting variations connected with the panic year 1907. It is interesting to make a quantitative comparison of the various magnitudes with the increase in the quantity of money as the most important factor in raising the price level. While it is true that the volume of deposits subject to check has increased greatly, the major part of the increase has to be ascribed to the increase in the quantity of money. Only so far as the volume of deposits subject to check has increased relatively to the money in circulation, can the increase of deposits be regarded as an independent cause of the rise in prices. We have thus to consider the relative importance of the five causes affecting prices:

1. The quantity of money in circulation (M).
2. The volume of bank deposits subject to check considered

relatively to money $\left(\frac{M'}{M}\right)$

3. The velocity of the former (V).
4. The velocity of the latter (V').
5. The volume of trade (T).

We may best compare the relative importance of these five magnitudes by answering the question: What would the result have been had any one of these magnitudes remained unchanged during these years, assuming that the other four changed in the same manner that they actually did change. We find (1) that if the money in circulation, M , had not changed, the price level of 1909 would have been 45 per cent lower than it actually was; (2) that if $\frac{M'}{M}$, the relative deposits, had not changed, the

price level in 1909 would have been 23 per cent lower than it actually was; (3) if the velocity of circulation of money, V , had not changed, the price level for 1909 would have been 1 per cent lower; (4) if the velocity of circulation of deposits, V' , had not changed, the price level in 1909 would have been 28 per cent lower; (5) if T had not changed, the price level in 1909 would have been 106 per cent *higher*.

Thus the changes in the first four factors have tended to raise prices, while the change in T has tended to lower prices. The relative importance of the four price-raising causes may be stated in terms of the per cent already given which represents how much lower prices would have been except for each of these causes separately considered. According to this test we find the relative importance of the four price-raising factors to be as follows:

The importance of V is represented by 1,

The importance of $\frac{M'}{M}$ is represented by 23,

The importance of V' is represented by 28,

The importance of M is represented by 45.

That is, the increase in the quantity of money has an importance nearly double that of any other one price-raising factor. This study includes all the possible price-raising factors. To be sure, there may be innumerable causes raising the price level, but they can operate only through the four factors mentioned, or through the fifth, the volume of trade, which as we have seen has tended during the last fifteen years to depress rather than increase prices.

We conclude, therefore, that the chief cause of the rise in prices during the last fifteen years has been due to the increase in the money in circulation. This increase in money has doubtless been due in turn to the increase in gold production.

Similarly, back of the other three price-raising factors we shall find other price-raising factors at work. In particular the increase in V' , the volume of checks subject to deposit, has probably been due to the concentration of population in cities: for the statistics of Pierre des Essars for the velocity of circulation of different cities in Europe can be used to show that in general the more densely populated a town the more active its bank accounts and the more rapid the velocity of bank deposits. The increase in $\frac{M'}{M}$ in other words, the expansion of banks, has doubtless been due in large part to the opening up of the South, and the

recent banking laws favoring small towns may have had some part in it.

A by-product of this investigation has been to show the exact proportions of the business of the country conducted in cash and in checks. It is found that the percentage of the total business of the country performed by cash has varied from 14 per cent in 1896 to 9 per cent in 1909. We thus find that the business men's impression that about 10 per cent of the business of the country is performed by cash and about 90 per cent by check, is substantially correct.

MONEY AND PRICES—DISCUSSION

D. F. HOUSTON: The discussion of money and prices today reminds one very strongly of the discussion forty years ago. Now, as then, the opinion is that prices have risen; but now, as then, there is wide difference as to the explanation. Now, as then, a highly respectable body of economists attribute the rise mainly to the new gold; and now, as then, a number of economists attribute the rise to influences immediately affecting the cost of production of commodities in general, instancing such things as labor unions, monopolies, extravagance, the tariff, general prosperity, etc. When I first glanced at the abstract of Professor Laughlin's interesting paper my thoughts were turned to Cairnes's brilliant discussion. He says:

"But prices having risen, to what is the rise to be attributed? Here too, as I have said, there is a divergence of opinion. Amongst economists I think it is pretty well agreed that the advance is, at least in a large measure, due to the effects of the gold discoveries. But, on the other hand, there is, on the part of commercial writers, and in general of all who view the question from the standpoint of practical business, a strong disposition to ignore, or altogether to deny, the influence of this cause on determining the results. The enhanced scale of wages and prices is not disputed, but it is referred to such causes as 'the recent great development of trade', 'changes in supply and demand, or 'the effect of strikes'; and the facts seeming in each given instance to be traceable to one or more of such influences, the incident of an increased abundance of gold is regarded as something superfluous and irrelevant, and which need not be taken account of in seeking their explanation. Such a mode of argument, however, I do not hesitate to say, implies a fundamental misconception as to the nature of the problem to be solved. For to show that an advance of prices is connected with a development of trade, with changes in supply and demand, or with the action of strikes, is not to prove that it is *not* due to the gold discoveries. An increased supply of money does not, and cannot, act upon prices, or upon the value of the metal composing it, in any other way than by being made the instrument of trade, by affecting demand and supply, or by furnishing employers with the means and the motives for advancing the wages of their workmen; and, consequently, however clearly the advance may be traceable in each given case to an occurrence of this nature, the problem still lies open: nothing has been done towards determining the question whether the increased monetary supplies may not have been an indispensable condition to the realization of the advance."

He continues:

"I venture to lay down broadly this proposition, that, when an advance in the price of any of the great staples of industry becomes

definitive (monopoly apart), there are two, and only two, adequate explanations of the fact: either the cost of producing the article (understanding by cost, not the money outlay, but the real difficulties of production) has increased, or the cost of producing or obtaining money has diminished."

With full recognition of the fact that the question is complex and that causes have been at work affecting the cost of production of commodities tending to enhance their price, I should dissent from Professor Laughlin's conclusion that the main explanation lies in this direction, and should contend that the principal factor explaining the rise in price since 1896 has been the enormous increase in the supply of gold and in the devices that have been tremendously developed for facilitating exchange, operating to increase the efficiency of gold and therefore its power to affect price.

Professor Laughlin gives a summary of the production of gold by value for various periods from 1492 to 1905, which I give in part as follows:

1493-1850.....	\$3,150,000,000
1851-1895.....	5,641,000,000
1896-1905.....	2,900,000,000
1493-1895.....	8,800,000,000
1893-1905.....	11,700,000,000

Between 1905 and the end of 1909 alone the increase has been \$1,700,000,000, making a total of \$4,600,000,000 for the period 1896-1909—more than half the total production for the four hundred years from the discovery of America to 1895, an amount only a billion less than the total output of the new gold from 1851 to 1895.

Even if all the gold produced had been preserved, such an enormous addition in less than fifteen years would tend to create the presumption that prices would be strongly affected, even conceding a vast increase in the production of commodities and an increase in the difficulty of securing them. When we consider that much of the gold produced in the four hundred years down to 1895 was lost, that much of it has gone to backward countries, and that the stock of gold is materially less at any period than the production up to that date, the presumption that gold has been the principal factor in affecting price in the last fourteen years is considerably strengthened.

I recognize that the statistics of the stock of gold, as well as all the others that we deal with, are not exact. I imagine that the estimates of the stock of gold at any period are almost more unreliable than any others that we have to deal with, but I note them for what they are worth and I wish to compare the estimates of the stock of gold at certain dates, in the principal countries of the world, with the world's production of gold up to those dates:

	Stock	Production
1850.....	\$ 1,600,000,000	\$ 3,150,000,000
1895.....	4,100,000,000	8,800,000,000
1906.....	6,900,000,000	12,100,000,000
1909.....	7,015,000,000	13,400,000,000

If we assume that the stock of gold in the principal countries of the world in 1895 was 50 per cent greater than the estimate, or six billions of dollars, the total stock existing at that date would still be only a billion and a half more than the aggregate addition in the fourteen years following.

It is generally agreed that prices rose between 1850 and 1873, although the addition to the stock of gold in the leading Western nations was slight, except in the case of France, and here the phenomena were the addition of a considerable mass of gold and the expulsion of a large amount of silver to the East. The new gold had an effect principally psychological in this period, particularly in the United States where the anticipation was that large reserves of gold would be available and where additional stimulus was furnished to speculation and overtrading in all directions, leading to the collapse in 1857.

In the period from 1873 to 1879 prices declined in spite of the great increase in the production of gold, which aggregated about \$2,400,000,000 and resulted in an excess importation or retention of gold in the leading countries of approximately two billions of dollars, distributed fairly uniformly through the leading nations. This period was one of tremendous industrial activity, characterized by the opening up of vast regions of new and fertile lands, the completion of transportation facilities through a great part of these regions, and the effective use of numerous important inventions in agriculture and manufacturing, which had as their effect the production of a great increase in the quantities of commodities generally at a lower cost. The

period was further characterized, as all preceding periods had been, by chaotic financial systems, experimentation with them, and final settling down to a gold standard. Much of the new gold and of the silver was sent into new and backward, rapidly developing sections of the earth to furnish the very foundation of a currency system and to meet the demands for rapidly developing trade. The result was that the increase in money did not quite keep pace with the demand for it brought about by the readjustments of the financial systems of the world and by the rapidly expanding commerce.

Since 1896 conditions have changed. For the first time in the world's history, each of the leading nations has devised a much more rational and satisfactory monetary system. Some degree of order has been brought out of the chaos. Confidence has superseded distrust. The foundations were laid for these changes by the additions to the gold stock of the world by the large output of the mines during the last half of the nineteenth century. Industry has prospered, but no vast new regions of land have been opened up, such as were exploited up to the last decade of the nineteenth century; no such enormous development of internal improvements has been witnessed. Inventions have proceeded, but not with the rapidity or of such wide importance as during the period preceding 1895. I suppose it may be conceded that the factors tending to the lessening of the cost of production of commodities generally have not operated by any means so powerfully in the period under discussion. Conditions of production have become more stable, and in manufacturing the concentration of industry and the growth of large enterprises have been witnessed. There has been a vast increase in the output of commodities generally in the last fourteen years, ranging in many important items from 50 to 100 per cent or more, exceeding, perhaps, the growth of the preceding period of twenty years or more. But to account for an increase of price from the side of commodities in general, it would be necessary to furnish evidence of the efficient operation of causes leading to great increase in the cost of production of them; and, while I am prepared to admit that the decline in the cost of production of commodities was checked, and even that some increase in the cost has occurred, I have seen no evidence to convince me that the increase has been sufficient to explain the rise in the last fourteen years. Perhaps the most tenable position the opponents

could assume would be that the food products have not kept pace with the increase in the population and with the demand, but it is not clear that this difficulty has presented itself in sufficient degree, in this country particularly, to explain the increase of price. And, when we view the expansion of agricultural production in other parts of the world, the sufficiency of this explanation becomes still more doubtful. In the United States the production of leading crops, like corn, wheat, and oats, has increased nearly as rapidly in the last fourteen years as in the preceding period of equal length, and the yield per acre has not decreased.

In the period under discussion the nations which have added most largely to their stock of new gold are the United States, France, Germany, the United Kingdom, India, and the Argentine Republic. Of those for which we have much data the United States, France, Germany, and England have made the most significant additions; of these four the United States and Germany have at the same time most satisfactorily developed credit devices for increasing the efficiency of gold; and, while I believe it is conceded that prices have reached a higher level in the United States than in any of the other countries, I imagine that it may be found that there has been a slightly higher rise in Germany than in either England or France.

The situation in the United States presents unusual interest. Up to 1866 the net result of importations and exportations of gold and silver combined and of the retention of the gold and silver produced within the country itself was an addition of only \$238,000,000; between 1866 and 1876 the net result was the addition of less than eighty millions of gold and ninety millions of silver; between 1876 and 1886,—the period representing the resumption of specie payments,—something like a half billion dollars were added; but in the following ten years less than one hundred and fifty millions resulted from these forces. The Director of the Mint gives his estimate of the stock of gold in the United States in 1895 as \$502,000,000. The estimate for 1909 is \$1,612,000,000. More than twice as much gold has been added to the stock of the United States in the last fourteen years than was added in the preceding fifty, and the amount of money of all kinds has increased in the period from 1906-1909 from \$1,500,000,000, to \$3,100,000,000. The lawful money reserve has increased from \$420,000,000 to \$860,000,000, and the cash

holdings from \$875,000,000 to \$1,370,000,000; and, what is equally striking, the amount of individual deposits subject to check has increased from \$2,600,000 to nearly \$7,000,000,000. I am convinced that these enormous additions and developments, on the top of a somewhat adequate currency system in 1895, furnish the principal explanation of the rise in price.

That the tariff has played a part in the situation, I should of course not deny. By preventing us from securing supplies where they can be more economically produced, and by making it possible for domestic manufacturers to monopolize the market, and by tending to compel the payment for exports in gold, it has unquestionably played a part and is a notable factor. I imagine that for a part of the period under discussion the conditions which would make McDuffy's export tax theory applicable have been satisfied. In considering the tariff as a factor, however, we must not forget that we have had the tariff since the beginning, and that the rates have been nearly as high since the Civil War as they are today; and we must remember, further, that in one of the great countries which has no protective tariff the tendency of price has been upward; furthermore, we must not overlook the fact that many of the tariff rates, which are very high now, are not effective or not nearly so effective as they were in the earlier period, and also that its influence is probably greater in things in which the rise of price has been less marked.

I should not deny that labor unions and monopolies have had an influence in increasing price. The evidence seems to justify the conclusion that monopolies have had some effect in increasing price. I am not sure that there is sufficient evidence in regard to labor unions to enable us to form a conclusion. That labor, as well as capital, has been unwise, I should concede. Many of the policies of the labor unions are unquestionably detrimental to their own welfare and to that of the community,—if pursued they would be economically suicidal; that many of their other policies are wholesome and will result in economic gain, I think is equally clear; what the balance is, is uncertain. It is probably clear that strikes have not operated any more strongly in the later period than in the former.

Much has been said in discussion about the influence of extravagance. This has played a part in similar discussions at all times; every era has its cry of extravagance, and it is not clear that it has been more marked in our time than in former times.

And one thing is quite clear, that the extravagance, or economic waste, resulting from the prosecution of war and its after effects, has been conspicuously absent during the last fifteen years.

To summarize. The stock of gold in the leading western commercial nations, with which we are concerned in discussing prices, probably did not exceed \$5,000,000 at the end of 1895. During the next fourteen years there was added to the stock of gold of these countries an amount nearly equal to the existing stock. In addition, a number of these countries enormously developed their credit devices. According to all economic law, these facts create a strong presumption that gold has been the main factor affecting price. No sufficient evidence has been presented to overthrow this presumption. If, under existing conditions, gold is not the principal factor in producing a rise of price, I cannot easily imagine conditions under which it could reasonably be assigned as a controlling cause.

E. W. KEMMERER: An adequate discussion of the papers presented by Professors Fisher and Laughlin would require much more time than the few minutes at my disposal. I shall accordingly limit myself to a few points and support my conclusions principally by footnote references. This procedure is perhaps the more justifiable in view of the fact that my own philosophy of the relationship between money and prices is given in detail in the book¹ on money and prices to which Professor Fisher has so generously referred.

I have had the opportunity of reading in manuscript Professor Fisher's forthcoming book on Price Levels, of which his paper today represents one chapter, and find myself in substantial agreement with his main contentions. His discussion is a permanent contribution to monetary science of very great value. To a number of minor points, however, it seems to me, exception must be taken. For example, I doubt if the percentage of the country's exchange work performed by means of cash is as large as he estimates (p. 43), that is, about 86 per cent in 1896 and about 91 per cent in 1909, and believe that he has not made sufficient allowance for the tendency of figures based upon bank returns to exaggerate the relative importance of checks.²

¹ *Money and Credit Instruments in their Relation to General Prices*, 2d edition, 1909. New York: Henry Holt & Company.

² *Ibid.*, p. 107.

Professor Fisher's formula expressing the relationship between the circulating media and prices is essentially the same as my own,³ but he pays little attention to the factor of business confidence, which is a most important consideration in the interpretation of the formula. The ratio of deposit currency to bank reserves is a function of business confidence.⁴

The distinction Professor Fisher draws between the prices of individual commodities and the general price level appears to me, as to Professor Laughlin, to be untenable. It is, moreover, contradictory to his general philosophy of money. His index numbers recognize no general price level distinct from individual prices. He illustrates the point that the price of any individual commodity presupposes a general price level by saying that "the position of a particular wave in the ocean depends on the general level of the ocean." I can conceive of no such distinction between the general price level and individual prices as his statements seem to imply. General prices "are but a combination, or composite photograph, as it were, of individual prices."⁵ Professor Fisher's illustration of the ocean would be more apposite if he called it a lake whose level was continually changing, and if he considered each particular wave as extending to the bottom.

Passing to Professor Laughlin's paper, which has been presented to me merely in the form of an abstract, we find ten propositions, which to a considerable extent are repetitious. His first five propositions are rather commonplace generalizations and few economists will be disposed to dissent from their essential soundness. They place him much closer to the quantity theory of money than most of us, judging him from his previous writings, were disposed to think he would go; and in his third proposition he says, "Probably there is not so much difference of mind regarding the theory of prices as is sometimes supposed."

In passing over these first five propositions it may be well to note an important qualification to his statement that "The price of a commodity is the quantity of a given standard for which it will exchange." If by standard he means standard money (in the economic sense of the term as contrasted with the legal sense) the definition is essentially true; if, however, he means the bullion from which the standard money is made, the definition is not

³ Kemmerer, *Money and Credit Instruments*, pp. 9-18, 74-82.

⁴ *Ibid.*, pp. 82-8, 121-6, 145-8.

⁵ *Ibid.*, p. 9.

entirely true. For there is always a certain discrepancy between the bullion value of a coin and its money value even under a free coinage system, arising from such obstacles to the free flow of bullion into money and of money into bullion as brassage charges, delays in coinage, expenses of getting bullion to and from the mints, abrasion of coin, legal restrictions on melting, and the like. Occasionally such obstacles have caused a very great difference between the bullion value of a coin and the money value, as, for example, at the time of the Australian gold discoveries, where, owing to the delays involved in sending bullion to London for coinage, gold in Australia sold in the form of bullion as low as 60 shillings, 50 shillings, and in some instances 40 shillings per ounce, although an ounce of gold would coin into 77s. 10½d.⁶ Whenever there is such a difference, price is an expression of the value of money and not of the standard, if by standard is meant the number of grains of gold in the monetary unit, as, for example, 23.22 grains in the United States dollar.

With reference to Professor Laughlin's fourth proposition it may be said that no economist of standing claims that purchasing power is "identical with the quantity of the media of exchange in circulation." Effective purchasing power, however, in our modern business communities, does depend upon the possession of money or of the right to demand money. The amount of deposit currency which can be used at any time in purchasing goods is limited by bank reserves because commercial deposits are payable in money on demand at the order of the depositor. Other assets, no matter how good, cannot be used for the purpose of meeting deposit obligations, except when the entire credit machinery breaks down and suspension is resorted to under the euphemistic name of clearing house loan certificates.

Professor Laughlin's sixth and seventh points are essentially the same and may be considered together. He says:

".....Price-making generally precedes the demand upon the media of exchange, and does not at all imply any necessary demand at the moment upon the standard in which the prices are expressed.....The offer of money for goods is only a resultant of price-making forces previously at work, and does not measure the demand for goods....That is, the quantity of the actual media of exchange thus brought into use is a result and not a cause of the price-making process....."

⁶Cairnes's *Essays*, p. 25. See also Kemmerer, p. 39, note; pp. 57-9.

This contention appears to me to result from a superficial view of the price-making process. The offer of money for goods and the offer of goods for money are of course not the first steps. Each person has his own individual or subjective prices on all sorts of commodities; these subjective prices represent the valuations which he places upon the respective commodities in terms of the valuation which he places upon the money unit. The more of a particular commodity he has the lower his subjective valuation of a unit of that commodity; the more money he owns the lower his estimation of a dollar and the higher his subjective prices; and *vice versa*. Through a process of competition, selection, and adaptation, some of these subjective prices develop into market prices, that is, prices at which both buyer and seller benefit, and at which therefore an exchange takes place. To paraphrase an old adage, the proof of the market price is in the exchange. It is a common observation that stock quotations to be of much value must show the number of sales effected at the prices quoted. A stock for which the maximum bids were 100 and the minimum offers were 110, would not possess a market price in the strict sense of the word. The fact that sales have recently been made at a certain price, or are now being so made, is of course presumptive evidence that intending purchasers can buy at about that price. A market price, however, is the amount of money paid for a commodity, not the amount asked, offered, or promised.

Professor Laughlin's ninth proposition I find very difficult to follow. His premise that reserves are "a consequence of the loan operations" is a dangerous half truth; they are also a consequence of most other kinds of banking operations, cash deposits, cash withdrawals and clearing house balances, foreign and domestic exchange operations, etc. His other premise, that "the fact of an increased supply of gold does not *of itself* [the italics are mine] increase loans, unless the bank possesses the control of the capital which is a condition precedent to the loans," contains an element of truth, but is misleading. While an increased supply of gold does not of itself increase loans it normally has that result; and the bank's discount rate and the condition of its reserve are powerful factors in influencing its loan account. His premises, I believe, are not sound, and his conclusion, namely, that "the expansion of business is not a direct consequence of an increasing supply of gold, any more than an expansion of railway traffic is the direct consequence of an increasing supply of

cars," would not follow from his premises, even if they were sound. The normal causal chain is more nearly this: increased gold production results in greatly increased amounts of gold coming into the monetary uses.⁷ This gold comes into the hands of individuals and is to a large extent deposited in banks; increased money incomes on the part of individuals lower their estimations of the value of the money unit, raise subjective prices, and as a consequence market prices; larger money deposits in banks result in larger reserves, banks do not make interest on money held in reserves, and accordingly take measures to invest such surplus money, keeping these reserves as low as is consistent with law and their ideas of safety;⁸ inducements to borrowers are made in the form of more favorable discount rates; collateral is not scrutinized so carefully; the speculative market is stimulated by increasing supplies of call money; confidence everywhere increases; new enterprises spring up and old ones are expanded; and in a short time the new gold is absorbed by a higher price level and an overstimulated business activity. This was the situation after the Californian and Australian gold discoveries of the last century and it has been the result of the greatly increased gold production of the last few years.

Professor Laughlin's final point is that since 1895 the new demand for gold has roughly equaled the new supply, and that the changes in prices since 1896 must be sought mainly in the "other things", which have not remained equal. In support of this conclusion he offers two principal arguments. The first is as follows:

"... Because of the large existing stock of gold, very considerable changes may take place in the supply of gold without materially changing the world value of gold as related to goods in general. Rapid changes of price are hence more likely to be due to influences in the market for goods, to speculative changes of demand for goods, or to psychological forces working independently of facts. . . ."

In reply it may be said that the production of gold since 1895 represents a very large percentage of the total supply. The Soetbeer figures as supplemented by those of the Director of the

⁷ The value of gold bullion deposited at the United States mints and assay offices increased from \$87,924,000 for 1897 to \$205,036,000 for 1907. Figures furnished by the Director of the Mint.

⁸ It is noteworthy that the reserves of the New York associated banks, for example, are usually kept very close to the legal reserve requirements. Cf. Sprague, *Crises under the National Banking System*, p. 222.

Mint show that the world's gold production for the 405 years 1492-1896 inclusive was in round numbers \$8,982,000,000,⁹ and that for the eleven years 1897-1907, was \$3,513,000,000; in other words, for these eleven years it was over 39 per cent of the total for the preceding 405 years. Probably the effective supply represents a much larger proportion of recent gold because of (1) the large amount of loss chiefly by abrasion of the gold produced in the earlier years, and of (2) the greater degree to which this early gold has assumed specialized forms, such as jewelry, plate, etc.

Satisfactory index numbers of prices for recent years are not available for all the principal countries of the world. Such as we have, however, point to a decided rise of prices in all gold standard countries since about 1897. Comparing standard price index numbers in six of the chief countries of the world for the years 1897 and 1907, we find the general price level to have risen as follows:¹⁰

United States—Bureau of Labor figures.....	44.4%
Canada—Coats figures, (weighted).....	43.7%
England—Sauerbeck figures	29.0%
France—de Foville, figures for export prices ¹¹	13.3%
Germany—Hamburgh figures	30.8%
Italy—Necco figures for export prices.....	23.4%

If we average these figures together, assigning the same importance to the figures of each country, in order to get a *rough* idea of the movement of world prices in gold standard countries during the eleven years in question, we find that the average increase was 30.8 per cent. If we follow Professor Laughlin and compare the years 1895 and 1907, we find the average increase in prices to have been 25.8 per cent, and the world's gold production for the 13 years 1895 to 1907 to have been about 42 per cent of that for the preceding 404 years. When to this is added the fact that the evidence points to a smaller percentage of the world's annual gold production going into the industrial

⁹ Gold produced before 1492 represents an insignificant part of the existing supply.

¹⁰ Useful tables summarizing all of these index numbers, except those of Canada, are given by Achille Necco, in his article on *La curva dei prezzi delle merci in Italia negli anni 1881-1909*, in *La Riforma Sociale*, Sept.-Oct., 1910.

¹¹ Comparison is for 1897 and 1906, figures for 1907 not being available.

uses than formerly, and the further fact that during the period in question the increase and improvements in the world's banking facilities have greatly economized the uses of money, we see that a very substantial increase in general prices would be expected, despite a great expansion of business. World prices in fact have not increased nearly as rapidly as the flow of gold into monetary uses since 1897, not to mention the enormous development of deposit currency. The Director of the Mint estimates each year the amount of the world's new gold used in the industrial arts. Computations I have made based upon these figures show a tendency for a decreasing percentage of the annual production to be used in the arts, although there is considerable irregularity. For the seven years 1895-1901 the average percentage was 27.1, and for the seven years 1902-1908 it was 25.3.¹²

Professor Laughlin's second argument in favor of the proposition that the recent rise in prices has not been due primarily to the increased gold production is one of the most beautiful examples of begging the question that I have seen in economic literature. He says:

"In recent discussions one of the 'other' factors which has been slighted is the demand for gold since 1895. The examination shows that the new demand in countries turning to the gold standard, and in those already using gold and extending their demand, amounts in round numbers to about \$3,000,000,000. Hence the new demand has roughly equaled the new supply, since 1895,—a fact which jumps with the known conditions in the great financial markets like London, where new arrivals of gold are eagerly competed for by European banks."

Of course the demand for gold equals the supply, as does the demand for wheat or any other commodity, when one interprets demand and supply as one should, in terms of market prices. The general price level is the very thing which equilibrates the demand for gold and the supply. The higher price level about which we are talking is an expression of the absorption of most of this new gold into the world's circulation. Banks and merchants eagerly compete for it, because higher prices require more money to do a given amount of exchange work, and rising prices stimulate business.

¹²De Launay thinks that the industrial consumption averages somewhere between 40 and 50% of the annual output, but believes that for several years past the industrial uses have been absorbing a decreasing proportion, though an increasing amount. (*The World's Gold*, pp. 176-7.)

JOSEPH FRENCH JOHNSON: I am glad to observe that there appears to be a tendency toward agreement with regard to the fact that the value of money depends upon the demand for it and supply of it. Professor Laughlin likes the word *standard* better than I do. It suggests something permanent and fixed, whereas money is a very changeable thing. While I am in agreement with Professor Laughlin in the conclusion that the general level of prices depends upon the demand for and supply of money, I am unable to give assent to many of the propositions which he puts forward as links in the chain of reasoning leading to that conclusion.

For example, Professor Laughlin says, "A change of prices may be due to changes in the demand for and supply of (thus including the expenses of production) goods as well as to changes in the demand for and supply of gold." This proposition is true with regard to changes in the prices of particular commodities. The price of wheat may rise or fall as a result of a change in the demand for or in the supply of wheat. The proposition, however, is not true with regard to a change in the general level of prices. An increase in the supply of goods will lower the level of prices for the simple reason that it will increase the demand for gold. I am not certain that I have understood Professor Laughlin's exposition of his theory, but he certainly seemed to me to argue that there could be a change in the general level of prices without any change whatever in the demand for or supply of gold. Such a position, it seems to me, is absolutely untenable.

That Professor Laughlin seeks to hold this untenable position, it seems to me, is made evident by the qualification with which he accepts the statement that a change in the quantity of money, other things being equal, would be a factor affecting prices. He says, "An increasing demand for gold, however, would work against the effect of an increasing supply. If the new demand offset the new supply, then, if changes of price occurred, their cause must be sought in the influences touching the producing and marketing of goods." The second conditional clause in that last sentence introduces an impossible supposition, for if a new supply of gold is offset by a new demand for it, there could be no change in the general level of prices, so that no cause for any change would have to be sought in the "influences touching the producing and marketing of goods." Professor Laughlin appears to have in mind forces affecting the general level of prices which are en-

tirely hidden from my sight. A change in the level of prices means a change in the value of gold, and how can there be a change in that if the new demand for gold just offsets the new supply?

Professor Laughlin's analysis of the price-making process is incomplete and misleading. He is correct when he says that the causes of price changes must be sought in the forces settling particular prices, but he is manifestly wrong when he states that the price of wheat is "arrived at by the higgling of the market, which depends on the buyers' and sellers' judgment of the demand for and supply of wheat. " Such higgling would determine only the value of wheat. The price of wheat is not fixed until buyer and seller have reached an agreement in their estimates as to the value not only of wheat, but also of money. If wheat is comparatively easy to get, the price falls. If money is easier to get, the price rises. The demand for and supply of money is evidently just as important in the determination of the price of wheat as is the demand for and supply of wheat itself. When Professor Laughlin says that the offer of money for goods is only a resultant of price-making forces previously at work, he must have in mind some price-making process and price-making forces of which I have never heard. I know of no market in which goods are lowered in price except for the reason that at the higher price not enough money is offered to absorb the supply; nor of any market in which goods are raised in price except for the reason that buyers are willing to offer more money for the goods.

In his analysis of credit and its relation to the value of money, Professor Laughlin seems to me to have in mind a hypothetical financial world, the like of which does not and could not exist on earth. He strives to show that a bank's ability to make loans depends upon the amount of its capital and deposits, and that therefore any increase in the supply of gold would not in itself lead to an increase of loans. "Expansion of business", he remarks, "is not a direct consequence of an increasing supply of gold any more than an expansion of railway traffic is the direct consequence of an increasing supply of cars." He is quite right if he means that an increase in the amount of gold will not necessarily cause the exchange of more goods. But this does not appear to be his meaning. He holds that the use of new gold in bank reserves cannot be a causal force raising prices, for the bankers cannot increase their loans, in his opinion, unless the

condition of business demands such an increase. In his hypothetical financial world bankers are willing to carry idle stocks of gold and to wait until business conditions make necessary an increase in their loans. In the real financial world, of course, bankers do nothing of the sort. Bankers with surplus gold immediately tempt borrowers by lowering the rate of discount and thus increasing the money demand for goods in the markets. As a result there is an irregular and general rise of prices. More goods may not be bought and sold and there may be no expansion of business, but expressed in terms of money the totals are bigger. There is no analogy between dollars and freight cars. The carrying capacity of a car is fixed and unchangeable, but the carrying capacity of a dollar is elastic—so elastic, in fact, that dollars are always fully loaded no matter how small the supply of goods. As Professor Laughlin points out, although he apparently does not see its significance, the new demand for gold since 1895 has “roughly equaled the new supply.” Surely it could not have been otherwise, and no statistics are necessary to prove the fact.

MURRAY S. WILDMAN: My comments on these interesting papers will be directed upon the methods employed, and certain assumptions involved, in the arguments of both. Granting that Professor Fisher's analysis shows a perfect correspondence between the course of prices on the one hand and the quantity of money and credit instruments on the other hand, I am still unable to see which magnitudes are properly to be regarded as causes and which as effects. That variations in the value of gold and in the price level must be reciprocal, all will admit. If we regard M as denoting the gold supply for the present, a causal relation between M and P cannot be denied. But may it not be possible that variations in M' , or credit, and V and V' , the velocity of circulation of both money and credit, be simply in consequence of the variation in M and P ? Why is P the only passive term or why is it passive at all?

Suppose that the problem set was to discover the cause of credit expansion from 1896 to 1910. Would we not seek at once to explain it by reference to rising prices and greater volume of goods, making a broader basis for credit, while along with that is a greater gold supply which promotes the convertibility of an extended credit? Then might we not invoke Professor Fisher's algebraic formula, with terms rearranged, and show by this method of reasoning, supported by statistical verification, that the high

prices afford an adequate cause for the present expansion of credit?

But we are seeking the cause or causes of rise in the price level. This is equivalent to seeking the cause of decline in the value of gold. Does the "quantity theory" as newly expounded give us the solution? I think not. Rather it shows us that as gold has grown in supply, and fallen in value, credit has grown in magnitude and in rapidity of circulation, and that these changes in values and volumes have gone hand in hand with proportional changes in the price level and in the magnitude of commodity exchanges.

This view of the case brings me to substantial approval of Professor Laughlin's method of analysis and argument. That is, we must seek the facts regarding supply and demand as applied to gold, and those which bear upon supply and demand as touching goods, in so far as the demand for goods is expressed in offers of gold and gold representatives. Here the algebraic formula would be invoked to support his reasoning since M' and V and V' may be regarded as factors in the demand for gold.

To accept Professor Laughlin's method does not involve the necessity of his conclusions. The terms, by this method, do not lend themselves to exact mathematical statement and statistical proof, so conclusions cannot be exact and definite. This may be illustrated in a consideration of demand for gold. Some say that demand has grown step by step with supply and therefore gold has not been cheapened. Others say that supply has grown more rapidly than demand, and so gold has been cheapened and to that extent prices are raised.

Either statement may be wrong. I do not believe we have yet any reliable data regarding the demand for gold in the sense of a value-making factor. Most efforts to measure demand are based on statistics of gold in use. If one can show that consumption of gold in the arts, in the circulation, and in greater bank reserves, has increased *pari passu* with production, we are told that the value of gold has not been lowered by the greater supply.

But statistics of consumption give no clue to demand in the value-determining sense. We have many staple commodities, such as wheat and cotton, whose price drops sharply when the supply exceeds a certain normal volume, even though the whole crop is consumed. Statistically speaking, the demand for a cotton crop always rises as supply rises, and falls as supply falls, but that is because demand and supply become equated through a variation

in price. Demand, in this sense of quantity demanded, is in part a result rather than a cause of value.

When we can properly speak of demand as potent for the determination of value, we are thinking of demand from the point of view of *intensity* rather than the point of view of *magnitude*. But the demand which makes for value—demand intensively considered—is only measured by the purchasing power offered. Applied to gold, I know of no measure of demand except in the goods and services offered in exchange. To say that goods and services offered for an ounce of gold in 1910 are less than are offered for an ounce of gold in 1896, is simply to say that prices are higher. But it is these prices that we are trying to explain by giving the effect for the cause, when we say that demand has risen with supply.

Those staple commodities whose value falls off abruptly with any increase of supply beyond a customary stock are said to be subject to an inelastic demand, and those whose value declines uniformly with excessive supplies are said to have an elastic demand. Is the demand for gold elastic, or is it inelastic? And is it possible by independent analysis to construct the curve of elasticity which properly belongs to gold, and so avoid circular reasoning from the very prices we are trying to explain?

If the demand for gold is inelastic and the demand curve drops off abruptly after a certain supply is in evidence, the presumption is that in the conditions of gold production, rather than in the conditions of commodity production, lies the cause of our high prices. Moreover, if this be the case, we can readily see the cause of cheapening of gold, even though the product of a single year bears a small proportion to the existing stock.

If on the other hand the demand for gold be very elastic, so that it expands with growing supplies with no substantial alterations in value, then we are driven to seek the cause of high prices in influences directly touching the goods and services rather than in those directly affecting gold.

It would seem therefore that both methods of treatment have left something to be desired. The algebraic analysis, even as verified, presents the relations between magnitudes without showing the cause of high prices. The argument directed immediately at the value of gold of necessity involves consideration of the demand for gold, which, as a price-making factor, remains an unknown quantity.

T. N. CARVER: Professor Fisher's very elaborate and ingenious inductive method has demonstrated beyond all question the accuracy of his formula. The question remains, however, whether his formula supports his own conclusion or Professor Laughlin's. If, for example, it should be found that P is the cause of M , the formula would to that extent support Professor Laughlin's position. I believe that to a certain extent P is actually the cause of M . If the growing scarcity of agricultural land, or the increase in population and the increased demand for agricultural products without an increase in land, should increase the marginal cost of producing agricultural products to supply this larger demand, that would tend to increase the exchange value of these products, even according to the formula of Cairnes as quoted by President Houston. Even without any increase in the gold supply, this would cause each unit of product to exchange for a little more gold; then, in order that a given number of exchanges in agricultural products could be carried on, it would be necessary to have a larger number of ounces of gold, or a larger number of gold coins, or some other form of money of given denominations to do the money work. This, in other words, would necessitate a larger supply of money; and, if other forms than gold were not forthcoming, it would necessitate that a larger proportion of the stock of gold should be coined into money in order to do the work. Thus, without any increase whatever in the world's total gold supply, there would come to be an increase in the proportion of that supply used as money, or in the amount of gold coin actually used in circulation. I believe that this has taken place, and that it is one of the factors in the problem, although there has also been a very large increase in the gold supply to still further accentuate the tendency.

F. W. TAUSSIG: I congratulate Professor Fisher on his admirable paper. I am in accord with him in his method of reasoning and in all his essential results. His investigation of this subject adds another to the brilliant studies with which he has enriched economic science.

It deserves to be said, perhaps, that the term M' (deposits) in his equation is not entirely independent, but is in some degree a function of T . I say to some degree; it is dependent on T in part only, and not for very long periods. Professor Fisher has here treated it as dependent simply on M ; or rather not on M as defined

for his equation (money in circulation), but on another M—the money held in bank reserves. He has indicated the qualifications, which must be attached to this dependence of deposits on bank reserves. He has pointed out that though a general dependence appears over long periods of time, it is affected by changes in banking ways, and by the tendency to build up a higher superstructure of deposits in times of active business. But there is also a connection between T, volume of trade, and M'. That is, for short periods—nay, for periods of some years—an increasing volume of trade tends of itself to bring about an increasing volume of deposits. (I may say, parenthetically, that “volume of trade” does not seem to me an apt expression; “units of commodities”, the other phrase used by Professor Fisher, is better.) Though I would by no means go the length of Professor Laughlin’s reasoning, which seems to imply that every act of exchange supplies automatically its own medium of exchange, it does seem to me that our modern mechanism of deposit banking supplies an elastic source of deposits, which, for considerable periods, enables them to run *pari passu* with the transactions and loans resting on them. In the end, an increase of deposits finds its limit in the volume of cash held by the banks. But there is some elasticity of adjustment, by which loans and deposits increase as fast as transactions or faster; and this accounts in no small degree for the rise in prices during periods of activity. The phenomenon shows itself most strikingly in stock exchange loans, especially in a center like New York. There the business creates for itself quasi-automatically its own medium of exchange. I suspect it is undue generalization from operations of this sort that has led Professor Laughlin to take his extreme position—a position which I can not but think untenable. Some allowance for the temporary interaction between M' and T is necessary for the completeness of Professor Fisher’s reasoning.

RALPH H. HESS: Professor Fisher’s formula ($MV + M'V' = PT$) approximately expresses the mathematical equality of purchase and payment which cannot be questioned. I say *approximately* because M' (defined by Professor Fisher as “bank deposits subject to check”), if it be made to express an accurate measure of circulating credit, should include not only open bank accounts, but certain other values which constitute *current means of payment*, such as bankers’ bills, trade bills, cashiers’ checks, and cer-

tified checks. In other words, if M and M' are taken to represent, respectively, the value of authorized money in circulation and the value of circulating credit other than money, and if V and V' represent the respective rates of turnover of M and M' , the "equation of exchange" is obviously a mathematical identity. But this equation of values does not demonstrate or even imply any causal or quantitative relation between any two of its separate terms or factors, such as M and P or MV and PT . It does imply, however, that MV and $M'V'$ and, indeed, M and M' are mutually compensatory. This being true, variations in PT , or in either P or T , or in either of the two factors of T (volume of trade), *e. g.*, *materials of trade* and their *frequency of turnover*, may be equalized by coincident variations in either term of the left-hand side of the equation. Likewise, PT may remain constant while MV and $M'V'$ are subject to inverse variation, even to the extent of the elimination of the one or the other. Under conditions of primitive exchange, $M'V'$ actually is eliminated; and it is possible to conceive of a development of credit and funding institutions by which MV might be made to closely approach zero.

The relation which Professor Taussig has pointed out between M' and T (the *value of negotiable credit* and the contemporary *volume of trade*) is not only possible, but, in any community of modernized commerce, is actual. Moreover, a knowledge of the process by which commerce is financed by the existing mechanism of discount, loan, deposit, and draft justifies the conclusion that, if the volume of trade (T) be resolved into its factors, namely, *materials of trade* and their *frequency of exchange*, the latter factor of T is quite commensurate with the velocity of credit (V').

To me it seems incontestable that the volume and velocity of credit currency, as represented by bank deposits and other circulating media, vary directly as the volume and value of the materials of trade in the process of exchange, and are, mathematically speaking, dependent functions thereof. Granting this relation, an analysis of the equation of exchange establishes PT as the major determinant of $M'V'$, and, in so far as paper money may be authorized and issued upon the security of commercial assets, of M . That part of the money in circulation which does not derive its circulating powers from actual and potential commercial values is itself material of barter incorporating so-called intrinsic values.

The conclusion is clear that P (price) is independent of all other terms and factors of Professor Fisher's equation, that V and V'

are determined by the mechanical circumstances and organization of exchange, and that the value of M and M' , taken collectively, is a spontaneous derivative of PT . The fundamental determinants of prices and of "price levels", therefore, are to be found outside of monetary and credit agencies *per se*.

As to the nature and order of the price-making process and the actual forces behind price movements, I am in substantial accord with Professor Laughlin. That prices, individually and collectively considered, express the value-proportion of demand for and supply of goods on the market to demand for and "visible supply" of the standard commodity is fundamentally logical. Nor is there occasion to quibble over the paradox of disturbed equilibrium of demand and supply. Physically considered, the goods which objectify these terms are, of course, identical; but, in the valuation process, demand and supply denominate, respectively, *desire* and *utility*—the generally acknowledged antecedents of value. Price is the equalizing factor between the effective demand for gold and the effective demand for other goods, each taken in conventional units; and price changes are resultants of, and commensurate with, net variations in the value-factors of the standard and of the objects of exchange.

Referring to the nature of credit and the economic qualities of credit instruments, the somewhat figurative expression "goods coined into a means of payment" is a striking and accurate characterization. It is possible that all legitimate market values, under normal trade conditions, may be liquidized through credit agencies, and the goods in which they are incorporated be thus rendered immediately and conveniently exchangeable. This process may be consummated independently of prices and with slight regard to the actual supply of money. The truth of this assertion is, in fact, demonstrated daily in the marts of trade.

J. LAURENCE LAUGHLIN: There is time to answer briefly only a few of the points raised by several speakers. First, Professor Fisher's equation of $M V + M' V' = PT$ is to my mind not a solution, but only a statement, of the problem of price levels. It can be read backward as well as forward. For instance, it does not follow that the level of prices (P) will rise with an increase of M' , since—as Professor Taussig has pointed out already—an active development of trade and industry (T) would itself be a reason for an increase of banking loans and deposits

subject to check (M'), thus equalizing effects on both sides of the equation without necessarily increasing P . This result is, in fact, one of the points on which I have steadily insisted in my own exposition of the theory of prices and credit; and Professor Fisher's equation allows it to appear distinctly. His equation does not show causes; it states a static situation, into which various causes may be read. The facts between 1876 and 1896 disclose an increase of bank deposits of 500 or 600 per cent, and yet that period was distinguished as one of falling prices. Therefore M' cannot be regarded as having been proved to be a cause of higher prices. In my paper, I purposely included the general movement from 1850 to 1896 to serve as a corrective to hasty inference in the period of 1896-1909, when prices were rising; for the same group of forces were at work in both periods.

Second, Professor Fisher (in the reprint of his chapter distributed here) seeks to establish a causal relation between the amount of money in circulation (M) and the amount of deposits (M') which, in my judgment, is wholly unfounded. He has developed this in his paper in the *Royal Statistical Journal*. The error consists in supposing that a man's deposit account at any time varies with the amount of money in his possession. Rather, the deposit account varies with a man's wealth. The rich man does not carry much more money to pass from hand to hand than the man of moderate means. Monetary habits in the community require a certain level of circulation for all persons, but the deposits of an individual may soar above the common level without regard to the money he keeps in circulation. His bank deposits are rather a measure of the saleable goods he has sold, "coined into means of payment."

Third, I well recognize the high position Professor Fisher occupies in the mathematical school of Walras and others; but has he not made an error in stating the essence of the price relation in his mathematical symbols? So far as I understand him, he seems to deny the fundamental value-concept (on which there has hitherto been general agreement) that price is a ratio between goods and gold. In furtherance of that idea, he thinks that, before individual prices can be arrived at, the general price level must be ascertained. Now, in my exposition using the ratio-concept, I explained in detail how the general level of prices might be affected by causes affecting the gold side of the ratio,

Therefore, I did not neglect to account for the general level and that too without doing violence to the accepted value-concept. But the ratio-concept (which Professor Fisher seems to deny) allows the forces acting on goods also to affect the general level of prices as I have shown. In my opinion, he wrongly works from a general level of prices to particular prices; while I hold that particular prices, or actual quotations, are the bases from which all averages, or price levels, are always and inevitably computed. Moreover, in his diagrams, the level of prices he used was the one computed from individual quotations. Hence his whole reasoning on the conformity of the statistics to the terms of his equation is vitiated. Indeed the better agreement he finds—after elaborate statistical computations—between the elements and their result on prices (line P)—is due, I think, to relying on an equation which is nothing more than a statement that the whole is equal to the sum of its parts.

I regret that there is no time to discuss fully these and other points so that we may all learn something from others. There remains for me only to mention that Mr. Houston, in saying that I omitted to give the facts about gold, seems not to have heard the essential part of my paper. It was mainly taken up with the data about both the demand and supply of gold; but obviously it could not here convey all the facts for which a volume is needed.

Finally, when Professor Johnson suggests that I am wrong in stating that forces affecting the goods side of the price ratio have an influence on prices, he certainly cannot mean that conditions affecting the producing, marketing, and financing of goods have no effect on prices. How else, for instance, can we explain the rise of the prices of agricultural products? The special causes affecting them have little to do with the quantity of "money." Moreover, the term "money" itself is used so loosely and vaguely that we can come to agreement on price theories only by first agreeing upon what we mean by "money." In my paper, I have discussed the relations of goods, and their prices, to gold. But, in this country, we use gold little as a medium by which goods are exchanged. Thus the relation of the prices of goods to our media of exchange has been practically omitted. And yet the price-making process generally precedes the creation of the usual banking media of exchange by which most goods are exchanged.

IRVING FISHER: I have no desire, as has been humorously suggested by one of the speakers, to hide behind an equation, but I do find it necessary to take refuge behind my book on the "Purchasing Power of Money". So many new questions have been asked that, in the few moments at my disposal, I could not answer them all satisfactorily. I believe they have all been answered in the book referred to. For instance, a chapter has been devoted to transition periods in which it has been shown, as Professor Taussig has suggested, that during transition periods an increase in T may cause an increase in M' . The equation of exchange itself does not help us to decide which of these magnitudes is cause, and which is effect, but by means of other considerations, which are fully considered in the book, justification is given for the view I hold, that P is the one passive element of the equation.

Besides the causal relation between M and M' , there seems to be only one other causal relation. This is, that an increase in T , so far as it is a *per capita* increase, causes an increase in V and V' . For this relation there is evidence both *a priori* and statistical. It does not, however, affect the quantity theory of money.

As to the fact that the lever at the right of the fulcrum differs in meaning from that at the left—this is true, but the lever is, of course, simply used as a convenient symbolism for setting forth in one picture the statistical magnitudes involved. It does not enter into the argument any more than any other statistical diagram affects the method of the statistics plotted. Of course, the two sides of the equation must be, as mathematicians say, "homogeneous"; and this is provided for by the fact that while V and V' , represented by the levers, or arms, at the left, include a time element, T , the weight at the right, also includes a time element. That is, that while the arm at the right differs in meaning from the arm at the left by omitting the time element, the weight at the right differs from the weight at the left, on the other hand, by including a time element.

THE WORK AND INFLUENCE OF RICARDO

JACOB H. HOLLANDER

On May 31, 1876, the one hundredth anniversary of the "Wealth of Nations" was celebrated in London under most distinguished auspices. A brilliant company of publicists and scholars gathered at the invitation of the historic Political Economy Club; the Prime Minister of Great Britain occupied the chair; the French Minister of Finance was the guest of honor, and a succession of accomplished speakers undertook to estimate with sympathy and enthusiasm "the most important results which have followed from the publication of the 'Wealth of Nations', and the principal directions in which the doctrine of the work still remain to be applied."

A generation has passed, and again the devotees of economic science are face to face with a centenary anniversary. In January, 1810, one hundred years ago appeared the "High Price of Bullion"—the first formal contribution of David Ricardo to economic writing and the beginning of his identification with the science upon which he was to leave so marked an impress.

Obviously these two occasions are different in kind. The one is the tribute to a book; the other to an influence. Indeed the contrasts which the two anniversaries suggest are as significant as their association: Adam Smith, the learned academician, the distinguished philosopher, the center of an influential coterie of scholars and publicists—David Ricardo, the self-taught man of affairs, the conspicuously successful financier just broadening from casual interest in everyday happenings to intent concern in economic issues; the "Wealth of Nations", a formal treatise in two stately quartos, long years in the making, heralded by scholars as "equal to what has ever appeared on any subject of science whatever", and securing for its author "as near an approach to immortality as can fall to any economic writer"—the "High Price of Bullion", a loosely printed pamphlet of some fifty pages, quickly conceived and hastily written, undertaking to "add but little to the arguments which have been so ably urged" by others, and long since engulfed in the swift moving stream of current controversy.

But although Ricardo's entry into economic science is marked

by no epoch-making contribution, his influence upon that science has been great and determining. It is appropriate to the nature and extent of that influence that the centenary anniversary of his *début* should be marked by some sober appreciation, and that before a company of scholars an attempt should be made to answer the questions which many years ago J. R. McCulloch proposed to a company of English economists—"What are the principal additions made by Mr. Ricardo to the science of Political Economy?"

Bitter as have been the controversies as to the nature and causes of Ricardo's influence upon economic science, there is an impressive unanimity as to the reality of this influence. One body of opinion ascribes most of the form and much of the content of political economy in its present accepted phase to Ricardo. Another group insist with Jevons, that this "able but wrong-headed man shunted the car of economic science on to a wrong line." A third point out that current enlightenment upon many important practical economic policies traces back to Ricardo's illuminating analyses; and a fourth rejoin that the great follies of economic radicalism which have embarrassed and delayed social progress in the last half century are Ricradian in derivation. All of these alike bear testimony to a fundamental impress and a far-reaching consequence.

At the outset I propose to consider the conditions—some personal, some objective—which made it possible for Ricardo to exercise so important and so enduring an influence upon economic thought. This will lead naturally to a review of the specific elements which make up that influence and perhaps, in conclusion, to some appraisal.

The conditions of English economic life and thought in the closing years of the Napoleonic War were preëminently of a kind to elicit a new economic theory. When Adam Smith, a half century before, projected and outlined "the inquiry into the nature and causes of the wealth of nations", his purpose was like that of every serious economic thinker of the hundred and fifty years preceding, to make clear in what manner the well-being of the nation might be enhanced. He was convinced that the general policy of industrial regulation, conceived though it had been with a view to benefiting the energy which it affected, not only failed to accomplish the end desired but embarrassed and checked productive enterprise. On the other hand, he appreciated the re-

actionary quality of French economic philosophy, and the bizarre phase of its practical formulae.

The "Wealth of Nations" was thus in direct succession to the long line of answers to the perennially recurring question "How can a country become rich and strong, and the people in it comfortable and happy?" It was the question which North, Petty, Berkeley, Cantillon, Hume, Stewart—even obscure pamphleteers of the eighteenth century—propounded and attempted with varying success to answer.

But in the two generations which elapsed between the war with the American colonies and the final overthrow of Napoleon, a new and radically different problem became the concern of the serious observers of English economic conditions. It was no longer a question of how that nation could become rich. Machinery, motive power, the factory system, capitalistic organization, the growth of population, the amassing of huge industrial profits, the swelling volume of exported manufactures, the passing of England from a grain exporting to a food importing country—had all made unmistakably clear that the wealth of a country depended upon the quantity and the quality of its land, labor, and capital, and that the greatest of these was labor. The theoretical principles underlying the productive process still awaited analysis, and the normal development of economic science would have been in pursuit of this inquiry. But the productive mechanism itself was fairly well realized, and, before attention could be given to the more rarified speculation, a new and compelling group of phenomena had diverted economic thought.

I refer of course to the prominence which, let us say, from 1797, the year of the Bank restriction, practical politics, philosophical speculation, and economic judgment alike gave to the question, not any longer, how much wealth does the nation produce, or as very properly might have been asked, in what manner is that wealth produced; but, in quite a different spirit, what are the principles governing the partition of that wealth, or rather of its annual increment among economic classes. In a word, the problem of production though far from solved, was for the time being eclipsed, and the problem of distribution loomed up in commanding importance.

In France, thanks to the social stratification of the ancient regime, this transition in economic interest had already been affected, and such attention as Adam Smith gave to the problem of econ-

omic distribution was undoubtedly due to physiocratic influence. But in England the seed fell on sterile ground. Not until Parliament was called upon to determine whether legislative policy should be shaped, first, in the matter of the Bank, in the interest of debtor or of creditor; second, in the matter of corn laws, in the interest of agriculturalist, rather than of manufacturer; third, with respect to taxation and funding, in the interest of consumer instead of property owner—not until then was it that the economic thinker, deriving his philosophical creed from the new utilitarianism, felt impelled to inquire what will be the natural shares of these several classes, destined to be effected in one way or another by this contemplated legislation.

From 1800 on, the most acute economic thinkers began to turn from the, until then, definitive text of the "Wealth of Nations" and to press their inquiry along these lines left vague or fragmentary by Adam Smith. Long before the corn law issue of 1813-14 brought the debate to some culmination, there were attempts to analyze the principles determining the relative shares of rent, profits, and wages. Such inquiries were not merely a philosopher's quest, but a direct response to the inarticulate interest of the ordinary man of affairs. It was certain, that sooner or later a direct and definite answer would be given to this interest, and equally certain that if given in logical, compact form it would win acceptance, both from the economic fraternity and from the thinking public.

The time being ripe, the man was forthcoming. It is a commonplace to speak of Ricardo's business career as a clue to the quality and influence of his economic contributions. But such an objective explanation is uninforming. A truer and certainly a more illuminating interpretation is to say that the qualities of mind, in part a race heritage, in part a distinctively personal endowment, refined and intensified by education, apprenticeship, tutelage, and experience—those very qualities which enabled Ricardo to outstrip so many of his competitors in the world of affairs—inclined him to the interested pursuit of natural science and to brilliantly successful cultivation of economic analysis.

Of this equipment the most conspicuous fact was a remarkable degree of what might be described as mental disassociation. Ricardo was able to view—to the extent that no economist before or since has attained—a complex phenomenon, to single out therefrom one primary element, and to trace its ultimate course

free from the modifying or counteracting influence of opposed forces. This habit of mind is, I think, the essential explanation of his brilliant achievements in the financial world. At a time when the money markets of Europe were in acute convulsion, and when political crisis, industrial revolution, and agricultural disturbance had combined in one apparently inextricable conglomerate, it was that isolating power of Ricardo's mind, made effective by unerring logic and an intellectual fortitude, which soon made him a conspicuous figure in the new *haute finance*. A man so constituted would naturally enough find recreation, if only as a sympathetic onlooker, in natural science. When Ricardo's mind centered upon economic analysis, attracted by the subject matter, challenged by the defects of the accepted exposition, and impelled by the press of contemporary issues, it was inevitable that his intellectual processes should be exactly of a kind with those that had signalized both his vocation and his avocation.

Ricardo's mode of expression, while devoid of literary skill either as to plan or style, had nevertheless a degree of effectiveness quite at variance with his own depreciative estimates. The pamphlets and the correspondence written under the stress of controversial warmth illustrate this very much better than the "Principles", which often discloses a benumbing consciousness of authorship. But even his doctrines, if demonstrated awkwardly, were phrased compactly, often with a paradox-like snap. Through James Mill, Ricardo had learned that which Rousseau had confessed to Hume and which Hume had repeated to Burke: "The secret of exciting the attention of mankind was the employment of paradoxes." Such phrases as "the compatibility of a rise of wages, with a fall of prices", population "always increases or diminishes with the increase or diminution of capital," "the landlord is doubly benefited by difficulty of production"—once the principles underlying them were established—carried forward the propaganda with a momentum of their own.

But favorable as may have been the time, and peculiarly endowed the man and his manner, economic science would never have felt the Ricardian influence to the extent that it did, but for the intellectual tenacity, the irrepressible enthusiasm, and the propagandist activity of the group of friends, disciples, and expositors—James Mill, McCulloch, Torrens, John Stuart Mill, Mrs. Marcet, DeQuincy—who promptly espoused the new dispensation and gave it widespread currency. Adam Smith made

political converts, Dugald Stewart aroused student enthusiasm, but Ricardo won aggressive disciples. Consider for a moment the role of McCulloch.

First contact dated from June, 1816, and almost from that time McCulloch became a prolific and energetic expositor. From 1817 to 1827 he wrote the economic articles for the *Scotsman*, and for two years (1818-1820) he was editor of that journal. He became the principal economic reviewer of the *Edinburgh* in 1818, and continued so for twenty years. He contributed the important economic articles to the "Supplement of the Encyclopedia Britannica" in 1818-24, and to successive editions thereafter. McCulloch conducted classes and gave lectures on the study of political economy in Edinburgh and London "to large audiences of Noblemen, Gentlemen, Merchants, and others." In 1824 he was the first Ricardo Memorial Lecturer, and in 1828 he was appointed to the chair of political economy in University College. He wrote many books and pamphlets, compiled useful manuals, and rendered important editorial services. For two generations, or certainly until John Stuart Mill's apogee, McCulloch was the veritable keeper of the economic conscience of England; and McCulloch's exposition was dogmatically, aggressively Ricardian.

Turning now from the causes of Ricardo's influence upon economic thought, to the actual character of that influence, in the first place, there is a definite and tangible impress upon specific economic opinions. It is not too much to say that much of our present-day wisdom, with respect to (a) currency, (b) taxation, and (c) international trade is based upon Ricardo's analyses.

In the matter of currency, the development of monetary theory before Adam Smith, and more notably from Adam Smith to Ricardo, saw the appearance of many important principles. Ricardo's service was not merely to confirm and amplify such earlier doctrines, but to coördinate them with monetary practice to a degree that removed the questions involved from the arena of debate and established them as positive monetary canons. From the time of Gresham—or of Copernicus or Aristophanes—the impossibility of a concurrent circulation of standard and debased currency had been perceived; but Ricardo made clear that this principle operated only in face of aggregate redundancy, and thus laid the theoretical basis for the gold exchange currency of modern states. Hume and Harris—to say nothing of the economic liberals of the late seventeenth and early eighteenth

centuries—had stated that money everywhere tends to a value level; but Ricardo established the territorial distribution of the precious metals as the theoretical basis of the international price level and the principles governing foreign exchange. Lord Liverpool had demonstrated the historic futility of the dual monetary standard in England, but Ricardo gave life and general application to this proposition and laid the groundwork of modern monometallism. The necessity of restrictions upon issue functions other than the presentation of discountable paper—the modern culmination of a half century struggle of currency versus banking schools—was set forth in “The High Price of Bullion” in 1810. The propriety of disassociating issue from discount functions—realized in the Bank Act of 1844—was proposed first in 1816 and urged anew in the “Plan for a National Bank” in 1823. The project of a “gold tipped currency”, or a circulation made up of demand notes payable in specie upon legitimate occasion, was advanced in the “Proposal for an Economical and Secure Currency” in 1815, was actually adopted in 1819, and has since become, in part the system, in part the endeavor of the most enlightened modern states.

In the matter of taxation, we owe to Ricardo acceptance of the principles, first, that the social utility of any tax is determined not by its productivity but by its ultimate incidence; and, second, that this “influence of taxation on different classes of the community” is traceable by scientific inquiry, being governed by the laws of economic distribution. These considerations have become the fundamental criteria of every modern testing of a tax proposal. Almost from the very beginning of economic writing, fiscal pamphleteers and propagandists coupled with their advocacy of specific panaceas some reflections upon the social and economic effects of such measures, and these observations may perhaps be regarded as the beginning of a theory of incidence. But it was Adam Smith who first, at least among English writers, after classifying the fiscal devices of the modern state, and commenting thereon with a remarkable combination of practical experience, literary equipment, and hard-headed common sense, sought to trace out the ultimate resting place and the wider consequence of every such measure. In taxation, as throughout, Adam Smith’s exposition was Ricardo’s starting point, and indeed as an apologetic paragraph in the “Preface” to the “Principles” sets forth, it was only because of dissent from the theory of dis-

tribution implied in the "Wealth of Nations" that a recasting of the chapters on taxation became necessary. But it has been Ricardo rather than Adam Smith who has exerted the enduring influence in this direction. In Adam Smith's treatment of taxation, the variety of approach, the fullness of comment, the indistinctness of theory obscured and minimized the question of incidence. But in Ricardo's chapters there were simplicity, severity, coherence, and compactness. Incidence—the effect of a tax upon economic classes—loomed forth in detached prominence as the occasion of inquiry, and the analysis itself proceeded with irresistible logic in the light of a clearly defined, easily grasped theory of distribution. That theory, or the use made of it, may or may not have been defective or partial; but the mode of procedure endured and has become the characteristic of modern fiscal discussion.

That the modern theory of international trade must be credited to Ricardo has been set forth in another connection. But more than this, the theory of international trade, "as it was left by Ricardo, and expounded, but not substantially altered, by Mill", has furnished the scientific basis for the practical rule of free trade. This is alike the argument of advocates, and the verdict of historians of freedom of trade. Cairnes declared that, "for those who accept the economic theory of international trade, no further proof of the essential soundness of this fundamental principle of commercial policy [free trade] is needed." And with even greater definiteness, Professor Bastable has maintained, "The practical rule of 'free-trade'—that is, the removal of all artificial restrictions on, or encouragements to, any particular industry; the levying of duties for the purpose of obtaining revenue, and from no other motive; the levying of equivalent excise duties where customs duties are requisite; in short, the abandonment of the efforts, once universal, to divert industry into some channel into which the action of the normal economic forces would not have directed it—is a deduction from the theory of foreign trade" as expounded by Ricardo.

Before leaving the subject of Ricardo's influence upon economic policies, at least a word should be said of that commonplace tendency of modern social history to speak of the economic radicalism of the nineteenth century as an emanation of the Ricardian economics. There is a certain superficial warrant for this. "Scientific" socialism, not merely in its earlier English

phase, but as developed by Rodbertus and Marx, rests upon the assumption that value is embodied labor, and the appropriation by the state, wholly or in part, of economic land rent—either as a social panacea, as urged by Henry George, or as a fiscal device as contemplated by recent tax reforms—is based upon the differential theory of rent.

But, manifestly, it is necessary here to distinguish between a doctrine and the misinterpretation or outright perversion of it. In a certain sense, every consequence that follows—however remotely, or by reason of whatever new elements—the enunciation of a principle is to be considered in connection therewith. But in any estimation of influence, the tendency of the original message must be understood, and the effect of the intervening forces appraised. To pursue any other course would be to hold religion responsible for the excesses of religious intolerance or to ascribe the waste and brutality of modern warfare to modern technical invention.

The place which Ricardo—in correction of the obvious gap in Adam Smith's exposition—accorded "embodied labor" was, as has been pointed out again and again, not as the cause, but as the measure of value. Commodities possessing value are measurable with respect to the several amounts of labor involved in their respective production, just as according to Adam Smith and Malthus they might be compared with respect to the several amounts of labor which they would command, or according to other theorists, with respect to their exchange equivalents in gold, silver, wheat, or what not. Not only did Ricardo regard embodied labor as merely one of a series of possible units of value measurement, but he was very far from asserting its unique efficacy, and indeed ultimately arrived at a state little short of doctrinal agnosticism. "To me it appears", he wrote to McCulloch in the evening of his life, "that we have a choice only amongst imperfect measures, and that we cannot have a perfect one, for there is no such thing in nature."

So too, in the matter of economic rent. With the progress of society, capital tended to increase and, in consequence of limitation upon the productive capacity of the soil, profits to fall and rents to rise. But these phenomena in themselves betokened no social injustice. They "ought never to be the subject of complaint, if they are the effect of the natural course of things", for "they are the most unequivocal proofs of wealth and prosperity."

Sympathetic and warm-hearted in temperament, Ricardo was a firm believer in the possibility of economic betterment, particularly of the laboring classes. In the main this must take the form of self-help in the direction of a higher standard of life: "The friends of humanity cannot but wish that in all countries the laboring classes should have a taste for comforts and enjoyments, and that they should be stimulated by all legal means in their exertions to procure them." There was ample opportunity for direct activity by "the friends of humanity", such as Lancastrian education, savings banks, and the early Owenism, with all of which movements Ricardo was actively identified. To such amelioration the state might very properly lend itself, and, failing private agencies, Ricardo was one of the active supporters of Crespigny's unsuccessful motion in 1819 for a parliamentary inquiry into the reasonableness of Owen's scheme, and was made a member of the Select Committee of the House of Commons appointed in 1821 to consider the employment of the poor.

Yet withal Ricardo was an outright individualist, with profound respect for property rights and vested interests not as things desirable in themselves but as the essential bulwark of social stability. Thus he disavowed sympathy with McCulloch's proposal for the scaling down of interest upon the national debt, and, free trader though he was, insisted upon the gradual rather than outright reduction of the corn duties. He admired Owen and respected Place, yet he subscribed heartily to the verdict of the committee of 1821 as to the Lanark scheme: "Certainly your committee feel every disposition high to estimate the effects of good education and early moral habits; but to conceive that any arrangement of circumstances can altogether divest a man of his passions and frailties, as they comprehend principles in themselves undeniable, is a result which can never be anticipated."

By regarding economic distribution as the central point of the existing social order and the growth of economic rent as an incident of social progress, and by formulating compact dicta-like doctrines with respect to both, Ricardo perhaps stimulated mental inquiry as to the necessity of the prevailing system. In this sense—typified admirably by John Stuart Mill's later attitude—Ricardo may be conceived as an influence upon the genesis of social radicalism; but this is very different from the direct responsibility for Marxian socialism or Henry George land appropriation with

which he has been charged, and constitutes a service rather than a reproach.

There remains to be considered that which is after all the largest matter involved: What has been Ricardo's influence upon political economy in the narrower sense, that is, conceived as a body of scientific doctrines?

I may dismiss with brief comment the extreme positions as to the futility or, even worse, the mischief of Ricardo's theoretical work taken by the historical school on the one hand and by the psychological group of economists on the other. In the first, there is such signal failure to consider Ricardo's doctrines in their development or context as to breed suspicion that the subject of examination has either been the bare detached text or perhaps even the modified paraphrase of later expositors. Certainly the mode of criticism signally exemplifies that very neglect of historical perspective arraigned therein as Ricardo's prime defect. As to the less definite but if anything more violent strictures of the "subjective" economists, time has held the bank. Thirty-one years have passed since Jevons in the Preface to the second edition of the "Theory of Political Economy", with the recurrent pessimism that characterizes all scientific progress, spoke of "a shattered science" and made both indictment and forecast. Yet Ricardo has remained the main stream, and Jevons and his successors have become minor tributaries. It may be that we are still discouragingly remote from that day "when at length a true system of Economics comes to be established," but surely there is some warrant for the hope that in preparation therefor we shall not have "to pick up the fragments—and to start anew."

Quite as unreal and insufficient is it to describe Ricardo's influence as a mere addition to or amendment of existing doctrine. In 1824 Malthus summarized the characteristics of "the new school of political economy" as set forth in its new principles of value, of demand and supply, and of profits. But even Malthus, hostile dissenter as he was, was conscious of more fundamental differences, and the trend of subsequent opinion has been fully in accord.

As a matter of fact, the effective contribution of Ricardo to economic science was not content but method. It was he who, by example in the main, rather than by argument, established the title of economic inquiry to the rank of positive science, capable of pursuit by the logical method of deduction. In so far as Adam Smith wrote a scientific treatise, it was like the prose which

Molière's *bourgeois* spoke. Trained in classical philosophy, the academic successor of Carmichael and Hutcheson, the class-room expositor of "moral philosophy", it was inevitable that the "Wealth of Nations", both in lecture outline and in treatise form, should bear the earmarks of a philosopher of the schools. And yet no student of method can speak of the "Wealth of Nations" as a scientific treatise. The excellence of the work, its widespread popularity, and its practical influence grew out of a unique combination of useful information and common-sense argument, rather than logical plan or scientific method.

This appears, for example, at the very outset. After setting forth that the annual production of the nation is determined in large part by "the skill, dexterity, and judgment with which its labor is generally applied", Adam Smith omitted all analysis of these elements; and, declaring that "the greater part of the skill, dexterity, and judgment with which it [labor] is anywhere directed or applied, seems to have been the effects of the division of labor", he devoted himself exclusively to the division of labor. His account of the working of this principle is a veritable economic classic. But where he passes from description and detail to philosophical induction there is an abrupt collapse. To ascribe this division of labor to "a certain propensity in human nature—to truck, barter, and exchange one thing for another", and to regard this propensity as either "one of those original principles in human nature of which no further account can be given", or as "the necessary consequence of the faculties of reason and speech"—is a logical lapse that has excited the astonishment of all subsequent commentators.

If we turn now to Ricardo, an impressive contrast presents itself. Ricardo conceived his field of study with logical precision, and he cultivated it with scientific spirit. The field so defined may have been an improper demarcation and the logical method employed by no means the best; but definition and method there were, and from Ricardo's time economic study moved on, aspiring at least to be the analysis of a definite subject-matter by consciously logical method.

In part, this formalism as to scope and method came to Ricardo from without, probably from Dugald Stewart and Jeremy Bentham, through James Mill. I can explain in no other manner the familiar use of such phrases as "the science of political economy", "the laws of political economy"—to be found in Ricardo's

pages in marked contrast with the entire absence of such terms in the "Wealth of Nations." But to a greater degree it represents a native impulse, confirmed and heightened by Ricardo's sympathetic interest in natural science—chemistry and geology—and by his personal association with their devotees. To a mind as rigidly logical as his own it seemed an obvious truism that if political economy was to be studied at all it must concern itself, in the same sense as chemistry and geology were being pursued, with a definite subject-matter and employ as orderly a manner of reasoning.

It would be fantastic to seek for any formal exposition of method in Ricardo's text. Yet from the very beginning of his activity as an economic writer, he avowed that logical procedure which he practiced—assumption of definite forces and derivation of ultimate effects. Moreover, although Ricardo regarded economic principles as uniformities based upon fundamental social impulses, he was far from neglecting actual conditions either in deriving and verifying his theories or in applying them in the form of positive legislation. Thus in the "Principles" in 1817, he undertook to state his opinion not only after "his best consideration", together with the aid derived from preceding writers, but "after valuable experience which a few later years, abounding in facts, have yielded to the present generation." The pamphlets on currency and corn laws are direct analyses of contemporary conditions, and in their controversial aspects abound with verifications and qualifications of general principles in the light of actual facts. Finally, in the application of general principles—be it the incidence of taxation, the influence of agricultural improvements, the desirability of compensatory corn laws, the minimum rate of wages—Ricardo was quick to recognize the modifications which general theory must undergo in application to actual affairs.

In short, Ricardo conceived a positive science of political economy constituted of the tendencies or laws prevailing with respect to a clearly defined group of phenomena. He derived a series of uniformities, first by deduction from fundamental principles of human conduct, illustrated and tested by reference to past and present conditions. He assembled the principles thus obtained into a coherent whole, enunciated in unsystematic elliptical form, but characterized by all the essentials of a body of scientific doctrine. By this service he raised economic study to a new dignity, giving it consciousness and impetus. His data may have been in-

adequate, his method in part defective, and his conclusions sometimes misleading; but his inestimable service was in definitely converting economic speculation from detached inquiry or specific theorization to an organically related body of general principles. If the validity of certain of his doctrines has been questioned, if the universality of many of his conclusions has been denied, such results reflect the incredible expansion of the subject matter of political economy which a century of industrial growth has brought forth. What Ricardo did remains the corner stone of economic science. But more than this, what he tried to do gave the momentum to scientific study of economic principles and has continued its chief inspiration.

WHERE RICARDO SUCCEEDED AND WHERE HE FAILED

JAMES BONAR

In this year, 1910, we are just one hundred years away from the time when certain events occurred in English history with which David Ricardo was closely connected and which first brought him into notice.

They concerned the currency. The Report of the Bullion Committee was laid on the table of the House of Commons on June 8, 1810. The Committee (Francis Horner, chairman) had been appointed in February of that year, largely because of the "feeble efforts" of Ricardo and others to rouse the nation's attention to what was happening to its paper currency.¹ What had been happening may be judged from the fact that in the first three months of 1810 the price of gold bullion in that same paper currency was £4, 10s. an ounce, the mint price being then as now, £3, 17s. 10½d., the excess consequently about 15 per cent; to send gold was to buy gold at £4, 10s. an ounce or more in the currency as it then was.

Ricardo's "Letters to the Morning Chronicle" of August, September, and November, 1809, declared depreciation of bank notes to be an evident fact, and the overissue of them to be the demonstrable cause of it. The superfluous notes could not come back to the bank, for the restriction of cash payments enacted in 1797 still lasted, and the still valid laws against the melting of coin for exportation had the effect of extending the depreciation to the guineas. The whole currency was therefore depreciated, including such guineas as were visible; and, as to silver, whether in good or bad condition, a law of 1798² by limiting its sufficiency to £25 had thrown it out of court; it was token money.

Ricardo put his case more formally in the pamphlet on "The High Price of Bullion a Proof of the Depreciation of Bank Notes", the preface of which is dated December 1, 1809. Professor Hollander's republication of the "Letters to the Chronicle"

¹ Cf. *Letters to Malthus*, p. 17, foot. "Feeble efforts", *High Price of Bullion*, Wks. 290.

² Re-enacting law of 1775. See *Letters to the Chronicle* (ed. Hollander), p. 22.

has shown us how far the "Letters" are at one with the pamphlet. They agree, of course, in principle, but the pamphlet is more systematic. The paragraphs most nearly identical are those relating to the fancied connection of the rate of interest with the condition of the currency, and the supposed equality of silver with gold as standard money. But the clear statement of the general principle—the clue to all the difficulties of this particular economic question—is given only in the formal treatise and its Appendix refuting Malthus. Ricardo's idea is that the extent of a nation's need for currency is a definite fact about it, depending on its industrial and commercial peculiarities, as compared with those of another nation. It bears a definite proportion to that nation's trade and to the trade and currency of other nations.³ Just as in each society of men over any considerable time there is a definite and characteristic need of a certain quantity of food and raiment and the comforts of life generally, so there is a quantum of currency needed by each society. Neither the first (the other goods) nor the second (the currency) can be judged to be the same as for other societies; in fact each nation (and a nation is the most measurable kind of society, being the likeliest to furnish us with statistics) has a different scale and amount of wants from its fellows. But over any considerable time this is a standing difference, consistent with itself; and its unlikeness toward its fellows is a standing unlikeness. It does not stand so firmly that it cannot be shaken. Ricardo's "equilibria" are always those of the sea; his sea is never quite calm though always tending to be so; market fluctuations are its waves.⁴

Ricardo conceives that every disturbance of the proportion between the currency of one nation and the currency of another will cause a flow of the precious metals from one to the other, and such disturbance is not only an occasional cause of such a flow but (in spite of Malthus) it is the *only* cause under normal conditions and even under conditions, such as those of a war, not quite normal but not inconsistent with the action of economic forces.⁵ If a country in the flow and ebb of trade has proportionately too little currency, gold will be dearer there, and gold will go thither. Gold will become the means of payment most profitable to employ there, for it will be going from where it is less wanted to where it

³ See "Appendix" in McCulloch's *Works of Ricardo*, pp. 292-3.

⁴ Cf. *Letters to Malthus*, p. 16, top.

⁵ Cf. *Letters to Malthus*, p. 15, middle.

is more wanted. If on the contrary, the currency of a country has swollen beyond its needs, gold will leave it for the country where it is relatively dearer. This is true of other goods; in fact it is a deduction from the general principle applied by Adam Smith and others to all commodities.

It is no peculiarity of so-called international trade, in the narrow sense, for it holds between provinces of the same country. "The money of a particular country is divided among its different provinces by the same rules as the money of the world is divided amongst the different nations of which it is composed. Each district will retain in its circulation such a proportionate share of the currency of the country as its trade, and consequently its payments, may require, compared to the trade of the whole; and no increase can take place in the circulating medium of one district without being generally diffused or calling forth a proportionable quantity in every other district. It is this which keeps a country bank note always of the same value as a Bank of England Note."⁶ He goes on: "If in London, where Bank of England notes only are current, one million be added to the amount in circulation, the currency will become cheaper, or goods dearer. Goods will therefore be sent from the country to the London market to be sold at the high prices, or, which is more probable, the country banks will take advantage of the relative deficiency in the country currency, and increase the amount of their notes in the same proportion as the Bank of England had done; prices would then be generally, and not partially affected."⁷ This local experience had been utilized by the Bullion Committee which had taken notice of two striking incidents illustrating the case before them and drawn from the history of the banks of Scotland (1760 seq.) and Bank of Ireland (1804).⁸

Ricardo gained his point. The Committee reported that the evil was as he described it and was to be cured by the remedy he prescribed for it. The House of Commons was no doubt persuaded to reject this verdict; but there is no question that it was the right verdict, and within ten years the legislature gave it the force of the law.

Yet the name of Ricardo does not appear in the Report of the Committee; he was not examined before it, as far as the records show. An unnamed "Continental Merchant" holds sensible views

⁶ *High Price*, McCulloch's edition of Ricardo's Works, 283.

⁷ *Ibid.*

⁸ Report, pp. 40 and 42.

not unlike his so far as they go; but they do not go very far. Both refer to the Hamburg trade; but Ricardo could hardly be set down as a merchant, and his identity could hardly have remained concealed if the anonymous witness had been he.⁹ Other men too had been active on the same side.

It was, however, generally acknowledged that Ricardo's advocacy of the cause had been the most potent; he was as truly the protagonist of currency reform as Cobden, at a later date, of Corn Law Repeal. We may apply to his principles the eulogy of Marshall—"That doctrine was established by Ricardo and I do not know that any person has shaken it in the least."¹⁰ When you turn to Marshall's context you will observe that Marshall is speaking apparently of something different, namely, the general theory of international trade; he is speaking not of currency but of oranges and cutlery, as embraced in the general theory of international trade. This general theory, however, seems to have been formulated by Ricardo out of the theory of the local equilibrium of currency in the form in which it has just been described here. As Malthus and others have laid stress on tendencies, Ricardo, without ceasing to respect tendencies,¹¹ was coming to see the significance of proportions. Perhaps we might say that this is the dominant feature of his reasonings in economics. Where the theory of another economist was a statement of a tendency, his theory would be a statement of a proportion. "No law can be laid down respecting quantity."¹² The theory of foreign trade laid down in the "Political Economy and Taxation" (1817) is a statement of proportions.

It depends largely on the fact, more true in 1817 than in 1910, that capital does not move easily from country to country and therefore competition does not bring profits to a level all over the world or even all over Europe. There is one rate of profit in one country and a different rate in another. Each country has an equilibrium of its own, a level of profits to which domestic competition tends to reduce the profits of all commercial undertakings within the country. But the level of the foreign country

*He quotes the anonymous merchant more than once; see McCulloch's edition of his Works, pp. 308, 311, 322.

¹⁰Ans. 9735, Gold and Silver Commission, Evidence, December 19, 1887, p. 11; cf. p. 42 (English blue book).

¹¹E. g., pp. 51, 52.

¹²*Letter to Malthus*, October 10, 1820, p. 175.

may be quite different from our own. If we could move out capital from where profits are low to where they are high, the result would be good, both for capitalists and for consumers. When a country has a great advantage in one production and a distinct though less advantage in a second, the best course for all parties, on the principle of the territorial division of labor, is to bring in the capital to work both of them;—Ricardo does not say the labor perhaps because on the Malthusian principle labor could not fail to come where the capital came. But that easy transference of capital does not happen, and accordingly we have the phenomenon of a country importing what it could have produced as well as the foreigner or better, and producing and exporting only what it can produce, not only a little better but very much better, confining itself to the production where it has the greatest advantage, as a single person, of greater abilities for any and every career than his neighbors, lets his neighbors take up the trades in which he would have excelled them less and devotes himself to the trade in which he is most their superior. To a single person it is physically impossible to be a Jack of all trades in these latter days; to the country it is not physically impossible, but there are physical difficulties and social and linguistic difficulties, as yet not quite removed. This phenomenon of which much has been made in the expositions of later writers under the heading of comparative cost, is described most fully by Ricardo in a footnote, as if he himself did not give it front rank.¹³ The basis is given briefly in the text (76).

Alongside of this hindrance of effective competition we must place the fact that “gold and silver, the general medium of circulation, are by the competition of commerce distributed in such proportions amongst the different countries of the world as to accommodate themselves to the natural traffic, which would take place if no such metals existed and the trade between countries were purely a trade of barter.”¹⁴ “The money of each country is apportioned to it in such quantities only as may be necessary to regulate a profitable trade of barter.”¹⁵ “Accommodate themselves” and “regulate” are perhaps not very happy terms here. The following statement may be hazarded to avoid them. Under

¹³ McCulloch's edition of Works, *Political Economy and Taxation*, p. 77; 1st ed., p. 160.

¹⁴ *Political Economy and Taxation*, pp. 77-84.

¹⁵ *Ibid.*, 79-80.

barter an equivalent article, an article wherewith to buy what we want to have, is indispensable in all circumstances; under the régime of money, an equivalent article other than money itself, is not absolutely indispensable; the gold may be sent instead, gold being treated as the international money of commerce. Money is the measure of value; goods are measured by their prices in gold. Money is the means of exchange; goods are sent from where they fetch little of it to where they fetch much of it. Money itself, a tool of exchange but a material tool, will be sent from where it fetches less, to where it fetches more. It will, therefore, only be sent when the proportion of currency wanted by domestic needs is exceeded, and the value of money is relatively too low, prices of goods being relatively too high. It is therefore exported. But the tendency of exporting money is to raise prices of goods by increasing the abundance of money, in the country to which it is sent. But to raise prices in the country where you are buying goods is gradually to make it unprofitable for you to go on buying them there. From being cheap they will, like all other goods there, become dear; your money will be more valuable in your own country; you will find goods the more profitable mode of payment since they are now dear there, and the money will come back to the place where it is worth more, where the general level has been altered, if one may say so, to its advantage, and not to its disadvantage.

What causes such alterations? Be it remembered that an increase or a decrease in the facility of production of gold itself would presumably affect all countries equally, and after the first flicker, though the quantities were altered, the proportions would be as before, both between gold and other goods in the same country, and as between one country and another.

But how do we explain the difference in the value of gold between one country and another? Ricardo gives two reasons. There is first the difficulty of procuring the gold from the place of origin; one country may be either farther away than another, or may have fewer goods, to barter for the gold, of the sort that the mining country wants (82). Hence in the second place the development of manufactures, the skilled industry, and advantages of climate may make one country more easily successful in obtaining supplies of gold, and every fresh development of industry will make that metal cheaper. We might call the first negative and physical, the second the positive and human cause.

It follows that money is normally cheaper, proportionally, where trade is most highly developed.

Ricardo admits fully and sees as clearly as any of us here that there are disturbing causes (the phrase is used on page 81). Bounties and duties, for example, disturb the "natural trade of barter" and lessen the advantage possessed by the countries superior in skill, industry, and climate. If such countries adopt them they are limiting their own powers of purchasing gold cheaply (81-83).

Applying this particular conclusion of Ricardo's to our own day, we should say that the "natural course of things" would make English prices proportionally high; but the fact is otherwise, owing to the absence of disturbing causes (in the shape of vexatious taxes) in England, and the presence of such in rival nations. "They disturb the natural trade of barter and produce a consequent necessity of importing or exporting money in order that prices may be accommodated to the natural course of commerce; and this effect is produced, not only in the country, where the disturbing cause takes place, but in a greater or less degree in every country of the commercial world." (81) "Though taxation occasions a disturbance of the equilibrium of money, it does so by depriving the country in which it is imposed of some of the advantages attending skill, industry, and climate" (83), the chief being presumably the easier purchase of gold.

More space has been given to Ricardo's view of international trade as a sort of monetary equilibrium than can be given to his doctrine in its other aspects, as well as to his doctrines on other subjects. The intention was to raise the question, whether this was not the theory that led to all the other theories. It may have been the conscious skill with which he treated all matters of currency, that tempted him to generalize his solution there into a solution of economic problems in general. Few even of great thinkers are free from the domination of favorite categories, and Ricardo's favorite was proportion.¹⁶

Rent is a "proportion of the produce." (44) Is not value itself a proportion? Ricardo emphatically endorses the statement of Adam Smith that "the proportion between quantities of labor necessary for acquiring different objects seems to be the only circumstance which can afford any rule for exchanging them

¹⁶ Adam Smith, I, x. (end) has it; and so elsewhere, *e. g.*, IV, vii, 273, but it was not his favorite term.

for one another." (13) It is on the proportional quantity of labor that natural value depends, not on the wages given for that labor. Why? Because wages, like profits, have a uniform rate in a given country, competition driving them down to necessities. Whether the necessities mean a low standard of living or a high one (52), wages are "regulated by the proportion between the supply and demand of necessities and the supply and demand of labor." (95) In the same way competition drives profits down to the gains of capital employed on the worst land that is worth cultivating at all. There cannot be two rates in a given country, when competition does its perfect work (36). Whatever the variations of money, the value of the produce will "bear the same proportion to the value of the capital" after the variation as before. Although the produce is doubled, "rent, wages, and profits will only vary as the proportions vary, in which this doubled produce may be divided among the three classes that share it." (33) "The profits of stock in different employments bear a certain proportion to each other, and have a tendency to vary all in the same degree, and in the same direction" (60), profits being in any case high or low, according as wages are low or high, and depending "on the quantity of labor requisite to provide necessities for the laborers on that land, or with that capital which yields no rent." (70 cf. 66)

On the other hand, in proportion to the increase of capital will be the increase in the demand for labor (51). This increase, in the work to be done, raises the market rate of wages above the "natural rate"; but increase of population tends to pull it down again—and produce, we may suppose, the equilibrium of a calm sea.

Ricardo knows perfectly well that seas are not calm; he knows he is dealing only with tendencies. He is deliberately simplifying his subject, and tells us so (*c. g.* 66). In asking where Ricardo succeeded and where he failed, we are not only asking whether in the limited field he chose for his investigations he lighted upon the right tendencies and the right proportions, but whether his efforts had lasting effects, it may have been on method merely.

He has certainly succeeded in impressing all later economists with the importance of proportion. We need not suppose him to desire the coming of the calm sea, the stationary state; he says in so many words, that he hopes it is far distant (50). But are the tendencies and proportions such that a stationary state is

itself tending to arrive? No one ever saw a perfectly calm sea. But we all believe that on the whole there is a tendency for the waves to be ruled to a level. We (or our friends) have seen approaches to it. The scientific theory of the claim is said to be more complete than that of the waves. This is our plight at least in economics.

In regard to the monetary equilibrium and theory of the currency in general, if Ricardo's is called a quantitative theory, the title is almost paradoxical, for it is a theory, as he would himself have said, not of quantities but of proportions. Taking it for what it is under any title, we may perhaps say that in our own times it is only less true than in his because the non-competitive groups of foreign trade have become less non-competitive and the frequent occurrence of non-competitive groups in home trade has been recognized. The world is small now, and if protective tariffs did not struggle so hard against foreign competition, capital and labor might flow so freely, as he thought they never would or even should (77). In any case they flow much more freely than in his day. If we had the statistical apparatus desired by Professor Irving Fisher, we might test the monetary theory empirically. The free flow does not of itself invalidate Ricardo's theory, for he applied it to one nation within itself as well as to groups of nations one toward another, and if the nations drew together they would economically be as one.

In regard to the general theory of foreign trade, Marshall's judgment, already quoted, has no doubt against it a considerable force of continental opinion. At a recent Free Trade Congress at Antwerp¹⁷ Professor Mahaim of Liege gave a list of the doubters and was himself inclined to leave the theory of foreign trade to the mathematicians. The arithmetic of the older economists is however intelligible to a wider circle than the higher mathematics of the new. A recent pamphlet of the English Cobden Club tried, perhaps indiscreetly, to base the plea for free trade on an absolutely hard and fast distinction between home and foreign trade.¹⁸ We may note at least that Ricardo is still so far alive that when those topics come up his name cannot be kept out of them.

In the matter of currency, Ricardo is still, to many of us, one of the few writers who speak clearly and impressively. He has

¹⁷ Aug. 9 to 12, 1910.

¹⁸ *Imports and Employment*, by Mr. Russell Rea, 1910.

made the régime of inconvertible paper currency, otherwise "the rule of the rag baby", forever impossible in civilized countries. He has on the other hand extended the lawful domain of a convertible paper currency. Today in Canada, the currency for anything over a half dollar is a paper currency, resting on a quite invisible basis of gold sovereigns and American eagles and fine gold bars. This is an approach to Ricardo's 'Economical and Secure Currency.' Whether, finally, it be a compliment or not, Ricardo has some claim to be considered the father of the Bank Charter Act of 1844.

Professor Hollander has shown us how complete is Ricardo's title to be credited with the "Ricardian" theory of rent. The idea of differential returns has been extended farther than he can ever have expected. There is, however, one passage in the chapter on Rent,¹⁹ which gives a fair text for a sermon on Final Utility: "The exchangeable value of all commodities, whether they be manufactured or the produce of the mines or the produce of land, is always regulated not by the less quantity of labor that will suffice for their production, under circumstances highly favorable and exclusively enjoyed by those who have peculiar facilities of production, but by the greater quantity of labor necessarily bestowed on their production by those who have no such facilities, by those who continue to produce them under the most unfavorable circumstances, the most unfavorable under which the quantity of produce required renders it necessary to carry on the production."

Such theories as that of Professor Taussig on wages seem far enough from Ricardo, but you will note that the ruling idea is "a competitive margin for capital"²⁰ and it is the idea in Ricardo's mind in the passage last quoted.²¹

It was Ricardo's theory of value which from 1848 to 1871 seemed to John Stuart Mill "complete."²² The recasting of the theory of value has proceeded apace since then. Mill's was the last of the great textbooks to be almost purely Ricardian in theory. Not only the theory of value but the theory of capital and interest, and the theory of wages have all been modified; and there is probably no body of economists now, who would identify

¹⁹ In *Political Economy and Taxation*, p. 37.

²⁰ Address to American Economic Association, New York, 1909.

²¹ Adam Smith, *Wealth of Nations*.

²² *Political Economy* III, i, § 1.

themselves with the Ricardian doctrines exactly in the form in which Ricardo taught them. That there are Ricardian ingredients wrought into the substance of modern economic doctrines, is shown by such examples as the passage quoted from Professor Taussig. But Ricardo's success in those departments has been rather in method, than in results. He has given the type of characteristic economic discussion, close set logical reasoning from premises clearly defined, the defects almost invariably lying in those premises, not in that reasoning. As Professor Hollander has hinted, such a discursive treatise as that of Adam Smith, however necessary at the beginning of the new English period of economic research, would not be now reckoned scientific; and woe to him who would try to be a second Adam Smith and plant a treatise of that kind on us now. Even Malthus, writing a general treatise a few years after Ricardo's, is found to be attempting a more rigorous logical discussion in the manner of his friend. In many matters Malthus may have been really nearer the truth; but in tenacity of grasp, in close reasoning, he was no match for his friend. We did not need the rather ill-natured account of their debates at the Political Economy Club to convince us of this fact.²³

It would be vain to contend that Ricardo's writings or the writings of his friend, or even the two conjoined, contain the promise and potency of all the fruitful economical ideas of later date. He has left some departments of doctrine unilluminated. Professor Hollander has shown how much more he has illumined than is generally recognized. For an economist to have succeeded it is enough that his work in whole, or in the main part, has been built into the fabric reared afterwards. As we cannot conceive public finance to be taught without aid from Adam Smith, or the theory of population without Malthus, so we cannot conceive currency or rent or taxation or the funding system to be taught without aid from Ricardo.

Ricardo thought that his disciples would put his case before the public better than he could himself, because in his modesty he fancied they knew how to write and he did not. For all that, it seems likely that economists will prefer to read him in the original. Not only are they securer then against the risk of taking a commentary for a text, but they are likely to find his defects of style to have been exaggerated. They were exaggerated (he

²³ Bain, *Life of James Mill*, p. 199.

confesses it) by the writer of these very lines. It is true that the "Political Economy and Taxation" reads like a series of essays, originally detached and not quite compactly built together. But the sentences in detail are seldom worse than those of other economists. Economists, in reviewing each other's books, usually attack the reasoning and leave the style alone. There are ungrammatical sentences in Adam Smith, traceable with the microscope; but, though he is not saved for them, he is not usually condemned for them. If McCulloch's style was better, this has not saved him from execration. Professor Hollander has shown us that this adoring disciple was a little unscrupulous in the editing of his master's writings. In his notes on Adam Smith he was often wrong about his author's omissions and commissions. He was also fallible like all of us in proof correcting. Ricardo is credited even by Professor Gonner,²⁴ with a hopeless phrase in the chapter on Foreign Trade, so often mentioned in this address. The phrase, as it stood in the first and second editions, was perfectly good and grammatical; it suffered misprint in the third edition, which McCulloch too nearly followed.

If his style had really been one of the worst we should hardly have found ourselves bound to his phrases. An author may well be a little flattered when people who discourse on his favorite topics use his favorite terms about them. Of course, it may be obscurity that drives us to this, but it may be just the opposite. Ricardo's mistake in authorship, was his agreeing against his better judgment to try to cover the whole ground at one swoop in a single treatise, as if a lyric poet should write an epic. His own inclination led him to attack one subject at a time in a pamphlet. None of the pamphlets are strikingly defective in arrangement, and, if he had gone on letting them grow, one out of the other as they seemed likely to do, the result would have had coherence of thought in it. As it stands, the large treatise is not to be recommended as a model for our young economists to imitate. They ought not to imitate anybody; but it would be cause for rejoicing if an increasing number of them wrote pamphlets of his quality and in his manner, emulating him too throughout their controversies in the art of polite letter writing, of which he is a master.

²⁴ Ricardo's *Political Economy*, 1891, p. 123. McCulloch's ed. of Ricardo's Works, p. 81, near foot: "to the fact"; 1st ed. 1817 and 2nd ed. 1819 "in fact"; 3rd ed. 1821, "to fact".

THE RICARDO CENTENARY—DISCUSSION

ALVIN S. JOHNSON: The work of Ricardo is in need of no further appreciation; it has received even justice at the hands of Professors Hollander and Bonar, the authorities best qualified to pass judgment upon it. In a sense, we are all, undoubtedly, Ricardians. The content of our teaching is influenced greatly by the work of Ricardo, and our methods of theoretical investigation are influenced by it still more. Where we succeed it is largely because we are Ricardians; where we fail it is partly because we are human and partly because we are Ricardians.

Ricardo's habit of thought—what gives it its abstract character—is not that of the schoolman, who searches for the most general phenomena in his field, and seeks to explain them. Ricardo selects practical issues, interesting to him and to his age, and pursues their explanation relentlessly, discarding the facts that do not bear upon them, not as unimportant, but as irrelevant.

This method of theoretical construction, although perhaps more characteristic of Ricardo than of any other economist, can not properly be called Ricardian. It was a method used by Aristotle and William James, and in the intervening centuries, by all who were both philosophers and wise men. It is the pragmatic method, lately rechristened and popularized. Now, whatever the merits of this method, the positive results attained by it are valid and important only with respect to the needs of a given time. So long as the practical problems which give rise to a theoretical construction of this nature live and hold the center of interest, so long will the construction remain worth while—and no longer.

The practical problems that attracted the attention of Ricardo were the related problems of international trade, currency, and taxation. Other problems did indeed confront him, but most readers of Ricardo will admit that they appear incidentally compared to those which I have mentioned. For problems of this nature, it is obvious that a theory laying stress, not upon quantities, but upon proportions, will be effective. Not absolute value but relative value, not absolute incomes but relative incomes, are the significant phenomena. We ask, how does the imposition of a certain tax affect the relative price of commodities? How does a rise in the value of corn affect relative incomes?

These practical problems are still with us, and it is significant that the theoretical system that best enables us to deal with them is the classical, or Ricardian. After all, the contributions made by the newer theory to the analysis of international trade, taxation, and currency are of doubtful significance. The facts have changed somewhat; the treatment of these subjects has undergone modification, but its basis is still Ricardian.

We have, however, other problems, in which the present age is perhaps more interested than in the ones I have mentioned. We are interested in distribution, not as a mere matter of proportions, but as one of absolute quantities. We desire to understand the forces making for the improvement or deterioration in the absolute welfare of the laborer. We can get no satisfaction from the view that as the portion of labor increases that of capital diminishes. Nor can we get any satisfaction from the Ricardian formulation of the supposed ultimate minima of wages and profits. What is given in our problem is a value mass to be distributed; how far quantitative relations of the productive factors, how far personal strategic relations, determine this distribution are among the questions we are compelled to raise. And just as Ricardo abstracted, so far as possible, from distributive relations, in his value analysis, so we are justified in abstracting from value relations, except in so far as they give a clue to the constitution of the value mass to be distributed.

And here, I believe, is the place we must accord to the psychological theorists. Their function is to explain, not the exchange relations of commodities as such—a work better done, for practical purposes, by Ricardian economists—their function is to explain the constitution of the value mass or distribuendum. Whether they do this satisfactorily or not need not concern us here. What does concern us is that they do not represent “a minor tributary” to the main stream of Ricardianism; they represent a new stream, an attempt at a new formulation, to meet new practical needs. As our practical problems, then, are subject to a twofold grouping, so we are justified in supporting two different formulations of theory. We are likely to succeed just so far as we apply to our problems the theoretical system, Ricardian or non-Ricardian, that is constructed with special reference to them.

LEWIS H. HANEY: In considering the learned and interesting

essays now under discussion, the first point that strikes one's attention is a notable agreement in emphasis. They unite to lay emphasis upon Ricardo's contributions to the theories of money, of taxation and of foreign trade. The general student more frequently reads of Ricardo's doctrine of rent and of his notions concerning the measurement of value. It is notable, then, that in these centenary tributes, the finger is pointed to the more special theories—theories, in whose development, it will be observed, their author's environment and training afforded peculiar advantages. Furthermore, and equally notable, is the common emphasis of Ricardo's method of thought. Thus the great classicist's power of "mental disassociation", the "isolating power" of his mind—as Dr. Hollander admirably puts it—are referred to, and we are told that his success in important departments "has been rather in method than in results." Merely noting the first point of agreement with its significant emphasis, a few words may well be added on the score of method.

I cannot think that it is intended that Ricardo's method, in the narrow sense of that term, is a peculiar one, certainly not in so far as the use of deduction is concerned. Other economists, both before and since, have reasoned in pretty much the same fashion. The peculiarity lies, first in a twofold and intense abstractness; and, secondly, in a close connection of method proper with a characteristic, though unconscious, philosophy or metaphysics. By a twofold abstractness, is meant an abstractness which, on the one hand, concerns the facts of life as they present themselves in economic phenomena, and which, on the other hand, separates the science from other sciences and arts, however closely related. In his abstractness of the former order, Ricardo displayed both the merits and the defects which are so apt to attend upon that mode of procedure. For example, most critics admit that taken as a whole his work is deficient in verification and comparison with the facts, a deficiency which is especially in evidence in his treatment of wages. Overlooking differences in work and workers and the existence of non-competitive groups, he makes such unreal assumptions concerning motives and retarding factors as almost to make the "tendencies" and "natural" wage rates deduced by their aid the exception rather than the rule. His idea of the Malthusian principle of population certainly out-Malthuses Malthus himself. In a word, extreme ab-

straction bears fruit in a one-sided and incomplete wage theory.

But all the time the merit is there. Ricardo's thought was in advance of his English predecessors; in its schematic character it centered around a scheme or system, so far resembling the method of the Physiocrats. One thing comes first, then another; and all can be put in a nutshell. And this is no mean service. True it is that Ricardo's definition of concepts—like wealth and capital and land—have proved unsatisfactory; certainly his theories on rent, wages, and profits are regarded as incomplete and have been largely modified. It was not so much his originality in developing this or that point in theory which gave him his ascendancy; he was preceded by Quesnay, Turgot, Smith, Lauderdale, and Say. But these men left no complete and consistent *systems*. Ricardo did. He did the abstracting for the next generation. He clinched the claim of economics to be a science by giving it a backbone. We have worked out from the Ricardian scheme of distribution and along the lines suggested, merely reducing his residual element and extending his differentials.

It is another aspect of abstractness, however, that appears in the great economist's separation of his science from such related branches as ethics and politics. J. B. Say gave clear expression to advanced ideas along this line, which may easily explain Ricardo's familiar use of such phrases as "the science of Political Economy", but he was unable to put them so effectively into practice. When one reflects upon the large place that ethical and even theological elements occupied in Adam Smith's thought, the service rendered to the growth of economics as a science is made manifest.

But all this is relatively commonplace. It is not so common to realize that much of what is often attributed to method is in reality to be traced to the underlying philosophy. In our reasoning, the philosophy and the method proper enter as tacit premises, as it were, the former—the philosophy—being the more fundamental. When one thinker reaches one conclusion and another comes to a different result, we often say, "they have different points of view", and we generally mean that their philosophies of life differ. Probably one is a materialist, the other an idealist. So it is with Ricardo. He was a materialist. As such, his philosophy was opposed to the extension of social institutions. He believed that man is more a creature of circum-

stances molded by environment than a maker of his own destinies. From this philosophy, then, rather than from any peculiarity of method, flowed the greater part of such dogmas as the unqualified "principle of population", subsistence wage, equalized wages and profits, free trade, etc. In short, we are prone to lay a multitude of sins at the door of that which we call method, but which is really a complex of method and of what, for lack of a better term, may be called the philosophy.

Nor is the character of the problems which confronted him and of his class interests to be overlooked in this relation. They, too, played a part which has sometimes been confused with the method proper; for they could guide the process of abstraction and deduction.

It is in the philosophy element rather than in the use of deduction that we differ most from Ricardo. If the term realism might be used to indicate either a balancing of materialism and idealism or a superiority to either one of those philosophies, it could be said that we are more nearly realists than he. We are consequently better guarded against a one-sided application of the method proper. In the loose sense of the word, it is in this that our "methods" in pure economics most differ qualitatively from those of our predecessor.

A question has been raised concerning Ricardo's responsibility for economic radicalism. The narrow dogmatic promulgation of the labor-cost theory of value by James Mill and McCulloch is partly responsible; but, in addition to this, it seems clear to me that Ricardo did and does strongly suggest the question of injustice, and in the absolutism born of abstraction, sow the seeds of a radical reaction. "The interest of the landlord is always opposed to that of the consumer and manufacturer", runs a well-known passage, and this idea dominates his work.

Ricardo was himself a bit of a radical. The younger Mill was led to react somewhat from him. And the true view of Marx and George will not regard them as mere reactionaries, but, in part, as correctives for a certain radical element in Ricardian thought. To be sure, religion is not responsible for the excesses of intolerance, but some creed or pope may be. And Ricardo was for a time the pope of the Political Economy Club.

The methodologically self-conscious economist of today guards against misinterpretation, and so might Ricardo have done. All writers have not been so fortunate as Ricardo in

leaving behind a mass of letters to be used in exegesis of their published work—nor so wise in the selection of their editors. One must sometimes have the feeling that a man's books, like tubs, should stand on their own bottoms.

The suggestion made by Dr. Bonar that to Ricardo economics was a science of proportions rather than of tendencies is surely an interesting one, though rendered somewhat doubtful by the latter's frequent use of the word "quantity" and the interchangeable use of "portion" and "proportion." In fact, is the idea of proportion not dependent upon that of quantity? And is not the idea of tendency necessarily implied in that of a "natural" proportion? The whole point is well illustrated by Ricardo's discussion of profits. At the margin of cultivation, the aggregate product is divided between labor and capital, and distribution between them is apparently resolved into a question of proportion. But a proportion of what amount? And how proportioned? If the aggregate amount, the wages+profits-aggregate, is not a definite and limited quantity, the idea of a proportion loses significance. If, on the other hand, the amount of the wages+profits-aggregate is partly determined by the existence of a necessary minimum of profits, the amount of that minimum must be known, for otherwise it—the minimum—could rise to any point and no limit could exist to profit's portion or proportion. But Ricardo does not consider the problem from this side; he simply takes the wages to be fixed and regards them as the determining element, that is, "the *quantity* of labor requisite to provide necessities for the laborers" is the portion which determines the proportion of profits. Had he gone a little deeper into the question of quantities, his theory of profits might have been placed upon as stable a footing as his rent doctrine. He would have seen that profits, instead of depending upon wages, are independently determined in the same sense as are wages. While it does not seem to me that Ricardo always thought of mere proportions, it seems clear that his theory of profits affords an interesting illustration of such a tendency.

H. C. TAYLOR: "The effective contribution of Ricardo to economic science was not content, but method", says Professor Hollander. It is to the elucidation of this viewpoint that I wish to devote my allotted time.

Of the followers of Ricardo, some have accepted the Ricardian theory of distribution as a complete statement of the fundamentals and have devoted their time to the erection of a more lofty structure of economic philosophy based upon the Ricardian foundation. But, in accordance with Professor Hollander's suggestion, others have tried to follow Ricardo by using his method of observation and inference and proceed to a more complete study of the forces in operation in the industrial world.

When the former class of economic writers state the Ricardian theory of distribution, they are inclined to give too little attention to the accuracy of the Ricardian assumption, and often to leave off many of the modifications which Ricardo made, in order that they may get a highly unified and simple statement of economic doctrine.

Take for example the Ricardian discussion of rent. Ask any number of students of economics for Ricardo's treatment of rent and most of them will reply that according to Ricardo rent is *measured* in terms of the differences in the economic productivity of the land in use. More specifically, if a given farmer can secure \$20 more in product for a given expenditure of labor and capital on No. 1 land than on No. 2 land, the rent of the No. 1 land will be \$20 greater than the No. 2 land.

The assumptions underlying this statement are numerous. Variation in economic productivity of land is recognized and admitted by all as a fair assumption.

But this theory assumes also that all men of the class in competition for the land under consideration possess essentially the same degree of economic productivity.

The theory implies that if a given farmer can secure \$20 more return for a given expenditure of labor and capital on No. 1 land than on No. 2 land, the same thing will be true of all other farmers who may be in competition for the land. But all men who observe are familiar with the fact that there is a great difference in the economic productivity of men. Where one man can produce \$20 more produce per unit of labor and capital on one grade of land than on another grade, another farmer may be found who can produce no more than \$10 more product per unit of labor and capital on the No. 1 land than on the No. 2 land.

The fact that the one farmer in the above illustration could equally well afford to pay \$20 more for the use of the No. 1 land than for the No. 2 land is no ground for assuming

that under condition of competition he will have to pay that amount of rent. This is simply his individual estimate of what he might pay. Other farmers representing other grades of efficiency have different estimates of what they can afford to pay.

Obviously the rent that is measured in this way is not market rent, but only the individual estimate of the maximum rent which the given farmer might pay. Market rent, as market values in other instances, will be the outcome of competition among men of unequal strength upon the market, and while variation in economic productivity of land, as measured in terms of any given farmer, is an important factor in determining the amount of rent, rent cannot be said to be *measurable* in terms of such differences.

The correct theory of value applies to the annual or rental value of land, as well as it does to the market value of horses, and at any given time essentially in the same way. Every farmer who seeks maximum profits attempts to secure that piece of land which he can get at a rent which leaves the greatest margin between the amount which he could pay and the actual rent which he must pay if he takes the land.

The rent of the better grades of land will be more than the amount which the less efficient farmers can afford to pay rather than farm marginal land, but it will be less than the most efficient can afford to pay rather than farm marginal land, for the simple reason that there can be no competitor whose interest it is to push the rent as high as the strongest bidder might possibly pay.

It is strange that in the development of the modern theory of value, economists should have continued so long to identify individual estimates of the differences in the usefulness of land with differences in market rent. That Ricardo should have assumed all competitors for farm land to possess the same degree of economic productivity is not so strange, for the minds of most men were in his time obsessed with the eighteenth century philosophy of equality. But the most salient feature of the development of both philosophy and science in the nineteenth century is the evolutionary hypothesis, and this theory is based upon the existence of differences in the individuals of a species.

The adoption of this theory of evolution has given great stimulus to, and resulted in great progress in, science and philosophy, and yet economists continue to hold to the eighteenth

century assumption of essential equality of the individuals within a competing group. There were lucid moments when the Ricardian hypothesis was broken away from. Francis A. Walker appreciated the fact that men vary in economic productivity. He utilized this fact in his theory of entrepreneur profits. In this he has been quite generally followed by American textbook writers. Marshall, in his chapters on production, applies the theory of the survival of the fittest, and points out how the most efficient rise and the less efficient fall as leaders in industry.

But all alike have apparently failed to see that with the adoption of the principle of variation in the efficiency of competitors, the Ricardian theory of rent, as a statement of the *quantity* of rent, falls. Walker's theory of profits is based upon differences in the economic productivity of men of a class. It develops the idea of variable profits, due to differences in economic production of men. American economists have quite generally accepted this theory of variable profits, and yet they have adhered to the Ricardian statement of the quantity of rent, when the fundamental and oft-repeated assumption on which Ricardo bases his statement of the quantity of rent is, "There cannot be two rates of profit."

All attempts to modify the Ricardian statement of rent in such a manner as to conform to the fact of variation in economic productivity of the other factors will be futile so far as a quantitative statement is concerned. Something can be done in the way of showing how each new assumption varies the result, but when it is remembered that men varying in economic productivity are employing laborers varying in economic productivity, in the operation of the various grades of equipments in the production of a great variety of products upon various grades of land, it becomes obvious that any simple statement of the measure of rent is impossible.

One can, however, state the theory of value as applied to the annual value of land. This is what Ricardo was striving to do. He described forces and conditions which tend to increase rent, also forces and conditions which tend to decrease rent. The brief formula relating to the exact amount of rent at a given time and place is incidental to the main presentation by Ricardo of the subject of rent. The abandonment of the rent formula as long held is essential to a full appreciation of Ricardo's discussion of the rent-determining forces.

THE DIFFERENTIAL CHARACTER OF RENT

In discussing the character of rent, Ricardo makes several assumptions or propositions which are fundamental to his theory.

First, it is assumed that land, as nature provides it, varies in usefulness from place to place. This variation may be due to differences in "fertility" or differences in "situation."

Second, it is assumed that, the quality of the labor and capital remaining the same, an attempt to increase the quantity of products secured from a given area of land will, after a certain point has been reached, result in a "diminishing return."

Third, it is assumed that the most useful land is "limited in quantity."

Fourth, that the most useful land is not the only grade of land on which men can make a living.

Fifth, under these conditions, population will increase until the demand for produce will make it necessary to utilize some of the less useful land, or to cultivate the first grade land beyond the point of maximum average returns per unit of investment.

Sixth, Ricardo assumes free competition among the bidders for the use of land.

Under these conditions, it is asserted that a payment will be made for the use of all the grades of land necessary to supply the demand, excepting the marginal or least useful grade. *Rent then is a differential surplus paid for the use of the better grades of land*, exclusive of the payment for the use of the improvements upon that land. As such it does not enter into price, for price tends to equal marginal costs. Hence a tax levied upon rent cannot influence the prices of the products of the land. Neither will a change in the recipients of rent, or an artificial lowering of rent influence the prices of the products. These were practical conclusions in Ricardo's day.

THE INFLUENCE OF PROGRESS UPON RENT

First, An increase in population and capital, other things remaining the same, will make it necessary for the people to resort to less and less useful grades of land or to farm the better grades more intensively, accepting a smaller and smaller return from the succeeding investments of labor and capital. In either case an increase in rent will result (Sec. 29). "The rise of rent is always the effect of the increasing wealth of the country, and of the difficulty of providing food for its augmented population. . . .

Rent increases most rapidly as the disposable land decreases in its productive powers."

Second, In like manner a decrease in population and capital would have the opposite effect. "Land of a less unproductive quality will be in succession relinquished, the exchangeable value of produce will fall, and land of a superior quality will be the last land cultivated, and that which will then pay no rent" (56).

Third, Improvements in Agriculture may lower rent. "If eight million bushels of wheat be necessary for the support of a given population, and it be raised on land of the qualities of Nos. 1, 2, and 3; and if an improvement be afterwards discovered by which it can be raised on Nos. 1 and 2, without employing No. 3, it is evident that the immediate effect must be a fall of rent; for No. 2 instead of No. 3 will then be cultivated without paying any rent." This would, however, be accompanied by a fall in the value of produce of the land and in increased accumulation of capital. "For the profits of stock would be greatly augmented. This accumulation would lead to an increased demand for labor, to higher wages, to an increased population, to a further demand for raw produce, and to an increased cultivation. It is only, however, after the increase in the population that rent would be as high as before. A considerable period would have elapsed, attended with a positive diminution of rent."

"The improvements which increased the productive powers of the land, are such as the more skillful rotation of crops, or the better choice of manure. These improvements absolutely enable us to obtain the same produce *from a smaller quantity of land*. If by the introduction of a course of turnips [upon the field hitherto occupied by bare fallow] I can feed my sheep besides raising my corn, the land on which the sheep were before fed becomes unnecessary, and the same quantity of raw produce is raised by the employment of a less quantity of land. If I discover a manure which will enable me to make a piece of land produce 20 per cent more corn, I may withdraw at least a portion of my capital from the most unproductive part of my farm."

"*But there are improvements which may lower the relative value of produce without lowering the corn rent*, though they will *lower the money rent of land*. Such improvements do not increase the productive powers of the land; but they enable us to obtain its produce with less labor. They are rather directed to the *formation of the capital applied to the land*, than to the

cultivation of the land itself. Improvements in *agricultural implements*, such as the *plough* and the *threshing machine*, *economy in the use of horses* employed in husbandry, and a *better knowledge of the veterinary art*, are of this nature. Less capital, which is the same thing as less labor, will be employed on the land; but to obtain the same produce less land cannot be cultivated." And while the corn rent might be the same, the price of corn and the money rent would be lower.

"Without multiplying instances, I hope enough has been said to show, that whatever *diminishes the inequality* in the produce obtained from successive portions of capital employed on the same or on new land, tends to lower rent; and that whatever *increases that inequality*, necessarily produces an opposite effect, and tends to raise it."

Note that this analysis of the forces and conditions which influence the amount of rent can all be accepted without accepting the Ricardian statement of the exact measure of rent. It is believed that, if economists would, following Ricardo's method, proceed to describing other forces and conditions until all are catalogued and elaborated, a scientific statement of rent can in time be made. For example, starting with the general notion that rent is the price paid for the temporary use of land, and that rent is paid only for such land as is both useful and scarce, the statement may be formulated though the amount of rent paid for a piece of land varies directly with its fertility, directly with the density of agricultural population, directly with the abundance of capital, directly with the capacity¹ of managers, laborers, and equipments, directly with the demand for the products of the land, directly with the remunerativeness of opportunities for continuous employment upon the land or in supplementary industries, directly with the social advantages of the locality, etc.; inversely with the amount of land of the better grades available for the same lines of produce, inversely with the distance from the market, and inversely with the economic productivity of managers, workmen, and equipments (although in the long run the higher economic productivity of managers, workmen, and equipments makes possible a great increase in population, and hence a higher rent).

¹ Capacity is measured in terms of the number of units of the other factors which can most economically be associated with a unit of the factor under consideration.

Rent tends to adjust itself to changes in any of these conditions. Custom and lack of knowledge tend to maintain rent at the old level, whether it be too high or too low.

It is not intended to give a complete list of the conditions which should be considered, but to express the belief that if we use the work of Ricardo as a starting point for further investigation, following out one by one the various forces in operation, we may make economics a useful science.

The philosopher attempts to construct a complete and unified system of thought.

The scientists strive to see forces in operation without attempting a complete explanation and unification of knowledge.

The philosopher would use the Ricardian statements as a foundation for a superstructure of economic doctrine. The scientist should use Ricardo's work as a partially trusted guide in the early stages of an exploration into the realms of actual life, with a view to a better comprehension of the great complex of forces which drive and guide the wheels of industry and commerce. The function of the economist is to study economic forces in operation, to describe these forces, and where possible to measure them. When this process has gone far enough, economics will find a place among the sciences. So long as the minds of economists are obsessed with philosophies which obscure the facts, economics will fall short of rising to its true position as a science.

THE ECONOMIC ASPECT OF COST ACCOUNTS AND ITS APPLICATION TO THE ACCOUNTING OF INDUSTRIAL COMPANIES

ARTHUR LOWES DICKINSON.

The subject of this paper is one of much importance to commerce and it is well that before this assembly of economists it should be considered first from its theoretical aspect, namely, the economical principles involved in determining the cost of any given article of manufacture. These principles are not so generally understood as they should be, and experience tends to show that ignorance of them is one of the causes of excessive and detrimental competition. In discussing this subject it is necessary to refer to first principles which to some of you may appear elementary.

The term "manufacture" must here be used in its widest and most theoretical sense as including every operation necessary to convert a natural product to the use of mankind. In this sense it will be seen that it must also include transportation as an element which enters largely into the cost of all articles offered for sale, even if it be only the conveyance of natural products from the garden into the house. In other words, manufacture is any operation which renders a natural product available for use and by so doing gives it a value based upon cost in excess of that which it had in its natural state.

The elements that enter into this process of manufacture as so defined are:

1. The natural product itself, or Material.
2. The subsistence necessary for the labor or service employed in converting it to use in the place where it is required, or Labor.
3. The period during which the natural product has to be used or the subsistence has to be provided until by the sale of the finished product an exchangeable value is obtained therefor, or Time.

In these elements nothing in the nature of profit is involved, for the reason that it is represented by the difference between the actual cost of labor and the value which the combination of labor with material has given to the finished product, this being dependent on the demand for and supply of the particular article.

The resultant value so fixed may at any moment be more or less than the cost of the primary element, and if it exceeds this cost there is a profit which is divisible among the three elements represented by—

1. The owner of the natural product, whether it be the state or a private individual.

2. The individuals whose joint efforts have converted this natural product into the shape for which and to the place where the demand exists, *i. e.*, labor.

3. The owner of the accumulations which are used to provide for the subsistence of the owner of the natural product and of the labor during the period of manufacture, *i. e.*, the capitalist.

If, on the other hand, the selling value falls short of the cost the loss must fall upon the owner of the natural product and the capitalist, labor merely going without profit. The owner of the natural product is in fact also a capitalist, so that for practical purposes the division of profit is between capital and labor only, and the loss is borne entirely by capital which also in practice bears an additional loss because labor is usually able to obtain more than mere subsistence cost, that is, to obtain in advance a definite sum in lieu of its share of the prospective profit.

The continued conflict between labor and capital thus resolves itself into a fight between these two naturally opposed bodies for a more equitable division of the profit remaining over actual cost, each side as a rule honestly believing that the other is getting too large a share.

At first sight it may appear that this elementary description loses sight of the important part which land, buildings, plant, and machinery play in the process of manufacture. A little consideration will show that this is not so; but that these too fall naturally into the elements already given, each item involving the use of a natural product and its conversion by means of labor over a period of time necessitating the provision of subsistence by a capitalist. For instance, the conversion of ore into manufactured steel involves the following operations:

1. Natural products consumed, *i. e.*, ore, coal, timber, etc.
2. Natural product used but not consumed, *i. e.*, land upon which to carry on operations.
3. Labor—
 - (a) Extracting ore in some very primitive way.
 - (b) Smelting this ore in some equally primitive way,

and with the use of fuel of some sort, both these processes being carried out as by savages with no provided facilities.

(c) The manufacture of some kind of tools by using the natural products so far developed and so gradually and over long periods of time constructing plants suitable for manufacture.

(d) The actual manufacture of the articles which are of use to the community and have an exchangeable value out of which profit can be realized.

A more detailed consideration of the three elements of material, labor, and time will serve to bring out the principles involved in their determination.

Materials are either mineral, vegetable, or animal. Minerals are exhaustible and no methods are known of replacing them in any conceivable period of time. Vegetables, including principally timber, either perpetuate themselves or are capable of reproduction with the aid of labor in a reasonable period, subject to certain limitations as to soil and climate; while animals increase and perpetuate themselves in natural ways subject to natural laws and to the risk of extermination by other animals, particularly man.

Material cost consists in the first instance of the labor employed in obtaining possession of it in its natural state, but the value is fixed from day to day by man's estimate of the probable supply and demand and the difficulties and cost of making it available. The purchase price so fixed is in practice accepted as the cost, although it necessarily involves profit to the original possessor and to subsequent owners through him, who are able by virtue of the limitation in quantity available at any time to demand a sum down rather than wait for the uncertainties of future profit. The purchase price thus forms part of the cost and should be recouped on sale before any profit can be ascertained. Unfortunately in the case of many natural products, particularly of the vegetable kind such as timber and agricultural products grown on virgin soil, one most important element of cost has been largely overlooked, and that is the necessity of replacing or perpetuating the supply. In our own country we have evidences of this fact always before us in the wasteful destruction of splendid forests with little or no attempt at replanting, and in the worked out soils on the western prairies where crops have been grown for a generation by extracting all the natural wealth of the soil and

leaving behind exhausted land. The same process has gone on in other countries from the most ancient times and a warning against a continuance of the present conditions may be found in the dry, waterless plains in northern Africa, which have resulted from the wholesale consumption and destruction of timber by the Romans and their successors. In most European countries, as well as in India, this waste has been largely remedied by careful and systematic preservation of natural resources; and the federal government here has shown in recent years that it is alive to the vital importance of a policy of conservation.

Labor is a direct element of cost, represented by the provision of at least subsistence to those who perform it. The agitation in some countries for the payment of what is known as the "living wage" would seem to imply that all labor does not receive such subsistence. This, however, is really a question of the degree of comfort involved in the term subsistence and of the relative habits and customs of different classes of workers in different countries. Whether this standard should be higher or lower is not a question for economists but for social reformers; and it is sufficient here to note that the cost of labor, while theoretically limited to bare cost of subsistence, varies in fact, by reason of the supply of or the demand for labor of different classes, from the bare cost of living to a very comfortable sum in excess of that cost, permitting the workers to accumulate considerable savings. In effect, then, whatever share of ultimate profits the workers might eventually receive is in the majority of cases compounded for by a payment in advance, leaving the entire surplus profits to accrue for the benefit of capital, which on the other hand also has to suffer the loss if any. This exclusion of labor from all share in the ultimate profits in defiance of economic justice is no doubt a fundamental cause of the continued warfare between labor and capital, and a remedy would seem to lie in the direction of a return to the elementary principles of profit sharing, always having due regard to the fact that while capital may suffer a total loss labor at any rate is sure of its subsistence. Profit-sharing schemes, under which labor can obtain a reasonable share of the ultimate residue if any, and will thus suffer in a measure if there is no such residue, are now in operation in many important industries; and in the extension of such schemes undoubtedly lies great hope of a steady improvement in the relations between capital and labor.

The element of time enters into costs in the shape of a return to the capitalist for the use of his accumulated savings, represented either by natural products for temporary use such as land, or by natural products for consumption such as material or subsistence. The latter, being consumed, are an element of cost; the former remaining unchanged is not; the consideration given to the capitalist for permitting his accumulated savings to be temporarily used or consumed is a share of the ultimate profit, or interest. This is not theoretically, therefore, an element of cost, though in practice the demand for capital like the demand for labor is such that the capitalist is frequently able to stipulate for a fixed immediate return for the use of his accumulations, thereby, as in the case of labor, compounding for his share of the ultimate profit and throwing the whole risk of profit or loss upon the borrower. To this extent interest in such cases might perhaps be considered as an element of cost, although it seems better not only theoretically but as a matter of practice and business expediency to treat it as a division of profits. When the capitalist is himself the manufacturer no such condition exists, and interest cannot in such cases be treated in any way except as a division of the ultimate profit if any.

In the first outline of the theoretical elements of cost all profit of any kind was excluded; enough has now been said to show that this theoretical condition is impossible in practice and that in everyday affairs those who contribute to production, whether as owners of natural products, as laborers, or as capitalists, frequently compound by the receipt of a fixed sum for their share of the profit and so relieve themselves of any loss, leaving the entire ultimate profit or loss to be borne by one or more individuals among the other contributors. The amounts so paid by way of composition for these shares of profits thus come to form a part of the cost to those who continue to take the risk; and it follows therefore that the commercial cost of two identical articles, the absolute or theoretical cost of which would be identical, may be widely different because of the different conditions under which the processes of manufacture have taken place. As an instance, consider a piece of complicated machinery made entirely of steel or iron. The following possible conditions of manufacture may exist:

1. The manufacturer may own his own iron, coal, and other mines, and may at his own factories produce everything up to

the finished product. In this case his costs will include no profits except that accruing to labor.

2. He may purchase all his natural products but carry on all manufacturing himself at his own factories. In this case his costs will include the profits of the owner of the natural products as well as those of labor.

3. He may purchase from other manufacturers the whole or a portion of the parts that enter into his finished machines. In this case his costs will include not only the profits accruing to labor and to the natural products but also the profits of any number of other manufacturers who have preferred to limit their risk at a certain point of the manufacturing process, leaving to the final manufacturer of the complete finished product the whole of the ultimate profit or loss.

It is easily seen that in the first case the manufacturer's costs will be very much lower and his profits very much higher than in the other two; and, on the other hand, that he is taking much greater risks not only by reason of the longer time involved in the manufacture and the consequent greater chance of eventual fluctuations in demand and supply, but also because he has compounded with a great many more intermediaries for their share of an ultimate profit which may never be realized. A practical illustration of these conditions may be found in a comparison of the United States Steel Corporation, which owns its ore and other mines and converts these materials into finished buildings and plants, and a contracting company which buys all its finished material and itself only erects the building or plant.

Turning now from the economic to the commercial aspect of cost accounts, some further elaboration of the primary principles laid down becomes necessary.

The elements involved have been shown to be natural products or material, subsistence or labor, and time or interest; but in practice these elements are seldom found in this simple form. Natural products, as already shown, are combined with other elements with the addition of profit either to form the primary material for some other manufacturing business or to form the instruments used in the processes of manufacture, whether buildings, machinery, or equipment. The result of these more complicated groupings is that the principal headings under which commercial cost accounts fall are generally somewhat as follows:

Material—

1. That to which manufacturing processes are applied to convert them into some different form.
2. That which is used or consumed in the processes of manufacture.
 - (a) Directly.
 - (b) Indirectly.

Labor—

1. That employed directly in and upon the materials under process of conversion.
2. That employed indirectly in operations necessary for the manufacture but not a part of it, such as upon repairs to and up-keep of machinery, buildings, or equipment.

Expenses—

Consisting partly of material and partly of labor, which are incidental to the carrying on of a manufacturing business but have not any direct relation to the process of manufacturing.

Wear and Tear—

Or the gradual consumption of the buildings, machinery, or equipment employed in the manufacturing process,—more commonly known as depreciation.

Now the object of any system of cost accounts being to ascertain the cost of manufacture of each article or class of articles, it is at once evident that in a factory producing many different classes of product some method must be adopted for distributing many of the items of cost over the different classes.

Material in process of direct conversion and labor directly employed in such conversion present no difficulties, being easily chargeable to the process; and the same is true of auxiliary material consumed in the process or of auxiliary labor which can be segregated at the moment.

There is, however, a large class of items, such as rent (where payable), power, light and heat, payment of general staff of clerks and superintendents, wear and tear, and many others which cannot be distributed exactly and yet are a necessary and integral part of the cost of manufacture. These items consisting of part of the items of material and labor, and the whole of the items of expense and wear and tear, are usually grouped under

the term "overhead expense" or "burden", and distributed on a more or less arbitrary basis among the different products. This distribution involves most difficult questions, and the adoption of an erroneous method may easily appear to show that certain articles are manufactured at a cost well below their selling price while a more accurate distribution would show a reverse condition. The most usual method of distribution is by a straight percentage on the direct labor cost, and where all products are of the same nature this may give fairly accurate results; but it is not scientific. On the other hand, a more elaborate system of distribution based on an exhaustive examination of processes with a view to determining what share each operation should bear of each class of overhead expense, and requiring an elaborate analysis thereof, may involve so much expense as to be prohibitive; and the final result may be found not to differ materially from the more simple and ready method of a percentage division.

Modern factories are usually operated by departments, between which there are well marked divisions. Each department within its own limits occupies a certain floor space, involving light and heat proportionate thereto; uses an amount of power which can be estimated within reasonable limits; and has certain labor and other costs for general assistance, cleaning, stores, and superintendence, which belong entirely to its operations in total. All these can be charged to the department and serve to determine the burden of that department. Some items, such as rent (if any), insurance, heating, and light, may be charged to the department on the basis of floor space; others, such as steam or electric power, on the basis of horse power hours worked; others again, such as general labor, on the basis of the direct labor pay roll; and others, such as superintendence and general expenses, on the basis of labor and material costs combined. This main division is a comparatively simple one, although the circumstances of each case require careful study in order to determine the most nearly correct method; and if the industry is such that each department is carrying out only one class of operation, easily measured on some unit basis, the division of this burden over unit costs presents few difficulties. It is in cases where the operations in a department are of a varied and complicated nature, such, for instance, as a large machine shop, that almost insuperable difficulties arise; and it may well be doubted whether any really accurate distribution is possible.

In considering the item of overhead expense, it is necessary to emphasize the distinction which must be made between expenses necessary for the production of manufactured articles in a form in which they are ready for sale and the expenses incurred in offering them for sale to the public and in carrying through the sales when made. The former item, as has already been shown, is an essential element of cost of manufacture; the latter is an essential element of cost only from the point of view that without such expense the products could not be sold and the profits could not be earned. Strictly speaking, therefore, these selling expenses should be deducted from the price ultimately obtained for the product, and the difference only should be considered as the amount realized for the manufactured article. In practice this same result is often achieved in a different way by distinguishing between manufacturing cost and selling cost, manufacturing cost alone being employed for the purpose of valuing the product which remains on hand unsold at the time of taking an annual inventory, and selling cost being dealt with only in memorandum form in order that those engaged in selling the products may know the limit below which they should not be disposed of.

The necessity for accurate cost keeping by commercial enterprises lies in the fact that without such cost keeping, whether it be of a highly scientific nature or merely by rule of thumb, it is impossible for a manufacturer to know whether the price at which he decides to sell his articles will or will not yield a profit. The objection to rule of thumb methods is that they are generally quite inaccurate, except in cases where manufacturing processes are relatively simple. In the most usual cases, where the process of manufacture is divided over a number of separate departments each representing a different set of operations, any such methods can only lead to serious errors and frequently to ultimate loss.

It is necessary here to note that, while the ascertainment of accurate costs is essential, it does not necessarily follow that no profit can be realized by selling at a price which appears to be below such cost. In any factory equipped for a certain volume of production, the overhead charges will remain practically stationary whether the factory be operated to its full extent or to only a small proportion thereof. It will follow, therefore, that the unit cost of manufacture, including overhead expense, will be much higher when the factory is partly operated than when it is fully operated; and consequently a manufacturer can earn profits for himself by

selling a considerable proportion of his output at a small price over and above the direct cost excluding overhead expense, thereby reducing his unit costs and making more profit than he would have made on the smaller output. It is, however, safe to say that it would be dangerous to attempt to carry out any such procedure without an accurate knowledge of direct, overhead, and selling costs.

In the limits of this paper it is hardly possible to do more than supply this outline of the general practice of commercial cost keeping, but there are important questions as to the treatment of certain items which may be here considered.

Accountants frequently have to give opinions as to the propriety of including rent and interest in costs. In theory these two items are identical, rent being the sum paid to a capitalist for the use of land or buildings, and interest being his compensation for placing his natural product or his accumulated savings at the disposal of the manufacturer. Both items are therefore in the nature of a division of profits, out of which alone they can be met, and they should therefore be strictly excluded from costs. In practice, however, the effect of the laws of supply and demand is such that one capitalist is frequently able, as has been shown, to compound with another capitalist for his share of profits and to obtain instead a fixed payment independent of what ultimate profits may be. This fact seems, however, hardly to justify the treatment of these items as cost, but rather that they should be treated as an advance by one capitalist to another of a proportion of the profits which the former expects to realize, this proportion being accepted in full settlement of a fluctuating and doubtful future sum. This principle is recognized in the form in which railroad accounts are now prepared, where both rentals of leased lines and interest on borrowed money of all kinds are treated as a charge against the income from operations after the same has been ascertained, that is, as a distribution of profits.

In the case of manufacturing companies no such clear recognition of this principle is found, and rent for factories, etc., where paid, is always treated as an item of manufacturing cost or expense, while interest, an exactly similar item, is more usually treated as a charge against or division of profits. This method of charging rent as an expense has led to a claim that it is properly so treated, and that therefore when a manufacturer owns his premises and pays no rent an estimated amount corresponding

to the value of the use should be charged into and considered as part of the cost thereof. This sounds plausible but it is believed that a nearer approach to theoretical accuracy is to be found in the railroad practice of considering all rentals, at least when there is a natural division between rent and other service, as a charge against or division of profits.

If two manufacturers have identical facilities for manufacturing the same article and adopt the same methods and at the same expense, it is certainly not reasonable to say that the manufacturing cost of the one who rents his facilities instead of owning them is higher than that of the other who owns them; but it is reasonable and correct to say that the former, who has a smaller personal investment, is sharing his profits with the capitalist who contributes the facilities.

Similarly, in the case of interest, the manner in which capital is provided cannot affect cost of manufacture. A manufacturer may provide all his own capital or he may obtain some part of it from other capitalists who either take equal risks with himself or prefer in some way to limit their risk. The profit when ascertained has to be divided between the different capitalists according to the terms agreed upon, but no part of it should be an element of cost, nor should the method of its division be a factor in determining selling price.

This question of rent serves to show the difficulty if not impossibility in practice of laying down any hard and fast rules based upon economic principles, which are to so great an extent theoretical. Rent has so far been considered only as relating to the provision of manufacturing facilities, land, etc.; but an industry exists in which capitalists erect buildings and let them out in whole or in part to others for offices, residences, and other purposes incident and necessary to business enterprise of all kinds. Rent of a factory is clearly a distribution of profit, but it is difficult in practice to make the same claim for office rents, and yet the arguments seem almost identical. A general distinction may perhaps be made between rent paid for the use of premises which forms a direct and integral part of the manufacturing operations and that paid for premises which are merely incidental thereto; and a further distinction lies in the frequent inclusion in rent of the price for other services such as light, heat, elevator service, cleaning, depreciation, etc., all of which involve labor and profit, just as these items are involved in the purchase of material. No

general rule can be laid down beyond suggesting that wherever an item of rent appears to consist mainly of a direct division of profit it should be so treated and only considered as part of cost when it seems to be mainly a composite item of labor, material, and profit representing service rendered.

Some confusion in relation to these two items of rent and interest is found in the relation of the profits of a corporation or an individual to the profits of the business which is carried on. The latter should be identical under the same conditions of manufacture, whatever the financial arrangements may be, but the former is affected materially by the share of such profits which is distributed to others in the shape of rent and interest, as well as in commission or other payments dependent in any way upon profits. The claim is frequently made that in ascertaining the cost of a product all these factors should be taken into consideration, but this it is believed is a fallacious argument based on a mistaken idea of what constitutes profit in the abstract, as distinct from its division among the ultimate owners or stockholders. The point is an important one in so far as it may affect selling price and reasonable profit; for it certainly would not be reasonable that a manufacturer who had by hiring his factory, raising loans, sharing profits with his employees, and such kindred operations, distributed a considerable portion of his profits should then raise his prices to an amount in excess of his neighbor's who had decided to provide all his own facilities and not to share his profits with anybody.

The question is frequently raised whether distribution of profits made to employees under profit-sharing schemes, or contributions to pension funds, are proper items to include as part of manufacturing costs. This question must be answered in the negative. Labor has already received its subsistence and this is properly included as cost; any further distribution to labor, whether by way of a share of profit or a provision for old age or sickness, represents the share of labor in the profit. It must sooner or later be recognized by manufacturers that such distributions of profit to labor can only be made out of the share of profit that goes to capital, and ought not to be met by increasing the selling price to the community, unless it should appear that on general grounds the total remuneration in the way of profit to labor and capital combined is unreasonably small.

One of the important purposes served by accurate costs is to

enable a manufacturer to ascertain his profits when a considerable part of his product remains unsold. Profits can only be made out of the sale of the article manufactured; and such a factor as a general rise in prices of material and labor, after the completion of manufacture but before sale, cannot constitute profit. Hence, in ascertaining profit at any time it is essential that what is not sold should be carried over at exact cost, this cost being manufacturing cost in the condition in which the products actually are. It may also happen that products sold in advance have not been completely manufactured and cannot therefore be delivered; in the latter case the cost of manufacture so far as completed and the cost of sale together represent the amount expended on the product; and, provided there is every prospect that the total cost when completed will be below the selling price after deducting cost of sale, this is the amount to carry forward. There are, however, products which must be kept for a certain time before they can either be submitted to further manufacturing processes or sold; in such cases it is customary to take up as part of the cost of the products on hand a reasonable interest on the manufacturing cost for the period for which the products may have to be so held in stock. This is an exception to the established rule, based not only on economic theory but on sound practice, that interest is not part of cost; and it is in effect taking up part of the ultimate estimated profit before it is earned; although if this addition be limited to so much of the interest as has actually accrued to lenders of capital there may be no anticipation of the profits of the corporation or individual manufacturer.

Contracts are frequently entered into on the terms that the price is to be fixed at actual cost plus a percentage thereon, and disputes sometimes arise as to what constitutes cost. These disputes are almost always due to carelessly drawn contracts, the parties thereto and their legal advisers frequently having a very loose idea of the principles involved. The importance of a clearly drawn contract is evident in view of the conflicting views on such subjects as rent, interest, bonuses, commissions to employees, and many other similar items; and if a proper form of contract exists no dispute is likely to arise. In the contrary case, however, the elementary principles of costs may be relied upon to solve the difficulty. If a manufacturer enters into such a contract, it must be assumed that he has all the facilities necessary for carrying it out and that no charge for the use of those facilities, other

than actual wear and tear thereof in the course of carrying out the contract, can be allowed as an item of cost. Similarly, no charge can be allowed for rent or interest or other items, which, according to the theory laid down, represent a share of profits on the operations. It is on these items that disputes generally arise rather than on the more complicated questions of proper distribution of burden, upon which manufacturers and contractors are usually much better informed.

During the last decade competition and the increased demands of labor have materially increased manufacturing costs, and manufacturers have recouped themselves by raising prices to the consumer. Having reached the limit in this rise which the consumer will endure, they are now leading a general attack upon the railroads of the country, alleging that the latter, which have up to the present endeavored to meet higher prices and higher labor by the introduction of economies and without any material increase in rates, should be prohibited from now raising these rates to a point which will enable them to maintain the extremely reasonable return so far yielded upon their investments. A comparison between the cost and selling price of manufactures and of transportation respectively may show that if unreasonable profits are being made it is not by the railroads but by the manufacturers; and full inquiry may well result in establishing that the extra share of profits now given to labor under profit-sharing and pension schemes has not been met by the manufacturer by a reduction in his possibly unreasonable share of the profits, as it should have been, but by an increase in prices to the consumer. No investigation into the railroad rate question can be considered complete which does not take into consideration the margin between cost and selling price, not only in transportation but in all manufacturing concerns. No such investigation can be properly undertaken without a sound understanding of the principles and elements that are involved; and it is hoped that the inadequate attempt here made to set forth some of these principles and their practical application may lead to a discussion which will be of material value as a contribution to the important question which is now agitating the country.

ACCOUNTING METHODS FOR DETERMINING COSTS AND PRICES

WILLIAM MORSE COLE

Those who are trying to develop the comparatively new science of accounting are placed in a position unlike that of almost any pioneers who have preceded them—if not in kind, at least in degree. They are facing in extreme form the sort of thing that economists in general have long suffered. For many years economists were rather laughed at by business men because they were giving strange uses to old words or seeking peculiar visual angles for the observation of common transactions. With this you are all familiar. Only those who are specially engaged in the consideration of accounting, however, realize in what a high degree this is true of the accounting branch of economics. In this branch the professional man (and by this term I mean both the practitioner and the teacher) is using not only the common terms of business but also the detailed paraphernalia of forms of record, and yet he is forced commonly to recommend that they be put to uses that violate the traditions of generations and generations of competent or quasi-competent and altogether respectable bookkeepers. The business man does not object to economic theories as such, nor always to the application of those economic theories in public affairs, but when these theories knock at the door of his own counting room, and bring with them a reputation that leads the bookkeeper to say, "If you let them in, you and I will have to go to school again and learn a new language", he is inclined to shrug his shoulders and say, "Go away, little boy, go away!" His attitude toward the little boy is natural enough—and the epithet "little boy" is not altogether bad. Accounting is a little boy—he is far from maturity; but he is a stalwart youngster, and he has already done a great deal for those who have trusted him with a job. Undoubtedly for many years the so-called practical business man will laugh good-naturedly at much that the professional accountants advocate, and the more conservative accountants will laugh at much of what the more venturesome will practice. The test will lie always in the results—where men can be found bold enough to forget tradition and try results—but it takes a long time to get the community into a frame of mind receptive enough

to test the results fairly. One thing is obvious: for an accountant to install for his client a system of accounting that the client does not trust is practically to foredoom the experiment to failure. The client must see the value of what is recommended; and he must see the economic principle underlying the accounting system, or he will not see the value of the system as a whole. To get the accounts of the business of this country put upon a sound basis means the education of the public to something of an appreciation of fundamental economic principles.

We who are here are supposed to be without the prejudice of tradition—we are supposed to be open-minded enough to welcome any new thing that can justify itself both rationally and practically—whether it violates tradition or not. I am going to ask you therefore to forget what has customarily been done with regard to the determination of costs, and to consider the subject independently of tradition. Then when we have considered what is desired, we may see how far the traditional methods may be used to produce the thing desired. If we can get the thing we want without much disturbance of tradition, so much the better.

In the first place, I wish to premise that business is not always profit-making or even intended to be profit-making. Many large and valuable enterprises are concerned solely with product; they not only seek no profit, but they distinctly wish to avoid profit. They are concerned only to get the maximum product at the minimum cost. The number of such enterprises is continually increasing. It is futile to deny that these are business enterprises, for they seek to produce definite results through the employment of paid human agencies; and I conceive that element, bargain and sale relations between human elements, to make the distinction between business and other things, mere handicraft on one hand, and mere physical and mental activity on the other. No accounting is adequate unless it is based on the fundamental fact that costs have in them no element of profit for the enterprise concerned. If profit is in the enterprise, the profit is an amount over and above the cost, and the cost must as clearly exclude any element of profit for the enterprise as if the enterprise were concerned solely with product and sought to avoid profit. We may say, indeed, that accounting is concerned with the economics of consumption quite as much as with those of production; and no accounting is adequate which tries, figuratively speaking, to treat them both as if they were opposite sides of the same account—and

therefore presents what looks like a balance between them as if that were the final figure desired.

My second premise is this: With the determination of how much absolutely is a fair profit, accounting has nothing to do; but the facts upon which the fairness of profit hinges must be shown by the accounts just as far as those facts are capable of expression in figures. Let me illustrate: Whether interest shall be 6 per cent or 4 per cent, whether wages shall be \$5 a day or \$2, whether rent shall be \$5 an acre or \$1 a foot, is not a question for accounting to settle; but to discover all the figures that can be known as material for determining the fair rate of interest, of wages, and of rent, is the accountant's particular task. The final decision may involve important considerations of risk, of social desirability, of spiritual progress, that cannot be recorded in accounts. This is so obvious that you may wonder at my mention of it. I do it only because I find often that it is neglected in practice. In other words, the temptation is strong to try to strike a balance between the economics of consumption and those of production, and show a result which is neither—and therefore worthless for the purposes of either. For illustration, if in some municipal activity allowance for social value has been allowed to creep into a figure of cost (let me say a disregard of some fact in distribution of costs because the social value of the service is deemed to offset an actual outgo), the result may be satisfactory for the purposes of that particular calculation, and yet be seriously misleading when the figure is used for purposes of comparison in another connection or as the basis for a new figure where the social value of the service is not a factor of the same weight.

From these two premises that I have made—first, that accounting is concerned with *all business*, in the largest sense of the word, and, second, that accounting is *not* concerned with questions of policy but only with questions of fact (facts which justify policy or are the results of policy)—comes my fundamental thesis, that the proper function of accounting is nothing more or less than telling the truth, telling the economic truth, and telling it in such fashion that the known facts shall not be held in solution, so to speak, in a lot of supposed facts, estimated facts, and *quasi* facts. It is obvious that many figures in accounting are bound to be estimates—as allowances for depreciation, debts that will prove uncollectible, valuations of property owned, demands on contingent liability, etc.; but it is equally obvious that these estimated

figures may be shown in their true character—as the results of estimates, with the bases on which they were deduced—and that they need not be combined with known items so as to hide the identity of the known items and put the combination into the category of estimated items. In other words, the method of accounting should be the general method of science—expressed in the precept “So far as possible, isolate your causes, and distinguish your results.” A physicist who should conduct all his experiments regardless of atmosphere and temperature would learn nothing of natural law. An accountant who constantly and unnecessarily combines known and unknown quantities gets results that tell little about business operations; he certainly is contributing nothing to the advance of economic knowledge.

Let us now examine the application of some fundamental economic principles to accounting, and see what they suggest in the way of accounting facts and methods. It is clear that here, at least, abstruse and somewhat disputed refinements of economic theory can have no place; for, however advantageous it might be to put certain of such theories to the practical test of operations and accounting record, such experiments are available only where a business enterprise is offered as a voluntary laboratory; we could hardly recommend that sort of thing as general accounting policy.

The subject of our discussion this evening, as indicated by the program, is a method of determining costs and of using those costs as criteria for fixing prices. Whether the prices are to yield a profit or not does not concern us here; for even if they are to do so, the amount is to be determined by the application of some ratio or formula to the cost already found. Let us begin our application of these principles with interest on capital invested.

On this matter of what is a fair return for capital invested, all communities are much divided; but if my fundamental thesis is accepted, this does not much concern the accountant. He is not—that is, as an accountant—concerned with policies, but with facts. It is his business to record what has happened, and to do it in such fashion that every one may for himself determine what he thinks ought to happen. If the accountant bases his figures on his own theory of what ought to happen—for example, in the matter of payment of dividends—his figures are of practically no use to anyone who has a different theory; indeed, the accountant's figures are of little use even to the people whose theory is identical

with his own, for unless he has informed them as to the theory that underlay his figures, they know nothing as to what those figures really mean. Let us take a concrete case. A company has inaugurated a new business which is slow in development. For the first year it does not pay, for it has not yet developed its following or created a sufficiently large demand for its product. The books show a deficit. At the end of the second year, the condition is improved, but though there is every prospect of success not only ultimately but even in the coming year sufficient to wipe out the deficit, the net result of the two years is still a deficit. The accountant decides that this deficit is really an organization expense; indeed, that the full first year's deficit is an organization expense; and that the real result of the two years' operations is a profit, for the amount sunk in the first year is permanent investment, akin to payment for good will. He even goes so far as to say that interest on that first year's deficit should be met out of the product and should be charged as a cost—exactly like interest on funds locked up in machinery. He will say in future years that no profit is shown until enough has been deducted from product to pay interest on this year's deficit. In other words, he will have capitalized this deficit. There are logical grounds for such a view. When, however, we in later years make a study of dividends of this company, and find that none were paid in this first year, we naturally think that a fair return on the investment has not been made unless the later years have paid enough to offset the loss in that first year. Unless we learn that this deficit was capitalized, and that in later years interest has been paid on this capitalized deficit before net profits were deduced, we never appreciate what has happened. The accounts are figures plus a point of view; and the reader of the figures does not know which is which. The accountant, as an accountant, should have no visual angle. He should always face front. Our real problem is to learn what are the focal points on which the face-front accountant should fix his attention and to which he should relate all the facts.

With regard to interest on capital, which we have just been considering, we are forced to observe, as a practical application of our principle of isolating causes, that ordinary interest is made up largely of return for risk assumed. That, of course, is the really variable element in most interest rates. Accounting that disregards it is by so much failing to tell what it might of business

conditions and of the affairs of any particular business. It is easy to say that the gross interest rate is good enough for practical purposes, and that one interested in the risk element can easily deduct a minimum rate, for the true interest rate, and use the residue as the compensation for risk. That would be true if interest were always a final figure, or were always a coefficient. As a matter of fact, however, the interest rate is likely, mathematically speaking, to turn up anywhere in an equation—as a coefficient, as a divisor, as a power, as a root. Every time it turns up anywhere except as a final figure its weight is affected. Let us take as an illustration a case in which profit is sought. In our cost of manufacture we usually consider interest on machinery employed in processes as a part of the cost of the product. This is necessary if we are to distribute costs properly between different articles of product and fix prices accordingly. The selling price is usually determined by adding to the final figure for cost a figure for profit; and this profit must include not only interest at the minimum rate on the investment in the business as a whole, but also an element for risk. If the interest rate used in figuring the manufacturing cost—that is, interest on the cost of machinery—is at a normal market rate, it includes the element of risk; and the element is also included in the allowance for risk to be added, as a final figure, to the manufacturing cost. If the plan is well worked out, this risk element will not get in twice; but precaution must in any case be taken, and the precaution cannot be taken by general principle but must be by constant adjustment, for any change in the conditions—that is, in the place that the normal interest occupies in the equation—necessitates a new adjustment. If most of the property of the business is in a manufacturing plant, it would be true, assuming the normal interest rate to be used for figuring cost on machinery employed, that the return for risk which the company would have to earn on its investment would be practically all provided for in its manufacturing cost, and very little would need to be added, as a final figure, for risk included in profit; but if little of the property were so invested, a good deal must be added for risk. This gives a curious conclusion. If your property is in machinery, your risk is counted as cost, not as an element of profit; if your property is not in machinery, risk is counted as profits and not as cost. Surely there is no adequate accounting when the visual angle turns cost into profit. This illustrates what I mean by sug-

gesting the need of the front-face. What does clearness require to be shown with regard to one's own property used in one's own business?

It seems rather foolish to attach certain risks to manufacturing costs and then neglect others, no less connected with manufacturing, until the final figures are sought. No one thinks, for instance, of charging probable losses from bad debts to the cost of manufacturing the articles that will be ultimately sold for the bad debts, or of increasing the recorded cost of goods sold because of the practically certain loss on some goods remaining unsold. The fact is that the risk element of interest should be considered only as a final figure—not a manufacturing cost, but a return of the business as a whole, to make good in good years the evil chances of the lean years. When we have any consideration of interest as a factor within the business—that is, as cost—we are properly concerned only with that which is pure interest—roughly speaking, the lowest rate at which money is ever lent where the risk is negligible, say 2 per cent. (The exact rate is not here of consequence. I desire merely a pure interest rate that eliminates the variable element.) It is true that if your general risks are provided for in your final figure, the only actual known cost to you of using money in your business is, roughly, that 2 per cent; for if you lend it on anything else than the absolute security of a sound government and get more than 2 per cent you are assuming certain risks. To put this in another way, we may say that if all your property is invested in manufacturing plant and you charge in manufacturing costs an interest rate on machinery high enough to cover the risk on your investment, you do not need to add a risk element in the profit portion of your price, for you have already covered the risk in your manufacturing rate; conversely, if you have included in the profit portion of your price a proper risk element, you need to charge only pure interest (say 2 per cent) in the cost portion of your price. Practically, and for any particular case, it makes no difference where your risk element goes; but the moment you attempt to make comparisons of cost where conditions are dissimilar the difference in visual angle makes futile any attempt to make things coincide. Here is a case, then, in which only the application of a theoretical economic principle gives the front-face that enables accounts to tell the exact truth. We hear much of the desirability of uniform accounting. There can be no uniform

accounting without similarity of visual angle—or, better, exact front-face. In this matter of interest costs within the enterprise, the approximate pure interest rate is the only fixed element. The judgment of risk is dependent always on the personal equation; and so it should be a final figure to be floated on top of the known figures, so to speak, and not be lost in a combination, or an aqueous solution which is neither one thing nor another. When interest is charged against a department of a business for machinery or other property used by it, that interest might well be carried to an account by itself; for since it represents pure interest it should not be combined with the commercial interest paid and received in ordinary transactions.

Mr. Dickinson and I, you see, are in perfect agreement as to what we want—namely, isolation of causes; but the line of cleavage between causes we are inclined to draw differently. Mr. Dickinson, conceiving profit to be a certain surplus divisible between all three of the agents of production—labor, land, and capital—wishes to exclude all interest from cost; while I, conceiving profit to be only what is left after rent, pure interest, and wages have been paid—that is, virtually the compensation for risks taken—wish pure interest, and pure interest only, to count as a cost. Many accountants count as cost all interest on investment, including all risk elements.

I am aware, of course, that many persons will deny that there is any such thing as pure interest, or that it is sufficiently uniform to serve the use that I am arguing for. In answer I can only say here that I am satisfied that the variations in interest rate are due either to known actual risk or to supposed risk; and for our purposes—since the rate of interest is fundamentally affected by psychological elements—there is no difference between known risk and imagined risk. We may substitute the term “effective risk” for either. The so-called friction in the flow of capital, allowing higher rates in one locality than in another equally safe for the investment of capital, is nothing but the registration of effective risk.

If in any business enterprise new money must be borrowed to install new machinery, and credit is just now so bad that a high rate must be paid, it is absurd to allow that bad credit to go as a cost (as interest on manufacturing plant used) in the manufacture of particular articles of product; for if that is done, an improvement of credit will apparently lower the cost of produc-

tion: and yet credit has nothing to do with *manufacturing* processes. Even though high interest is actually paid, the risk element in that payment should be counted not as a cost, but as a deduction from profits; that is, the final figure of profits at the end of the earning period will be reduced because the enterprise has borne only a part of its risks, and has hired others (through a high interest payment) to bear some of those risks for it.

As Mr. Dickinson has well pointed out, if interest is allowed to count as a cost, it counts more largely when material is purchased partly or wholly manufactured than when only raw material is used. This does not seem to me objectionable. We are primarily seeking costs for the enterprise immediately concerned. If what is cost to it includes the profits for another enterprise, its costs will be (other things equal) inevitably greater. The accounts should show them so. We are, moreover, seeking also comparative costs: then, surely, we wish costs under conditions involving some one's else profits to show greater than under conditions where no profits are involved until the end. We wish causes isolated so far as possible. The plan that I suggest seems to me to provide such isolation.

When we come to consider the rate of return to capital in an enterprise as a whole, we may find an account for pure interest to be worth while for a single proprietorship or for a partnership, but it is hardly likely to be serviceable for a corporation. The income to the business as a whole from pure interest charged to departments should be credited to Profit and Loss in the usual way, and then the final net income will be compared with the amount on which the enterprise should earn profits. Whether these profits are fair is a question not for the accountant but for personal or judicial opinion. It involves the visual angle. What information can the accountant give that will serve for the front-face, so that men with visual angles shall know how to read the figures and allow for their own foreshortenings and perspectives? I conceive that in this matter of capital investments there is but one front-face. Any other point of view at once introduces a matter about which there can be honest difference of opinion. One man says rates should be lower because the people have created the value of what the company is utilizing. Only if the accounts show what the owners have actually put in, or left in of their earnings, can anyone tell whether the public did create the value—and even then it is in large part a matter of judgment; but

without the figures the judgment has nothing to work on. Another man says that rates should be higher because they do not yield a proper return on the valuation of the property. Yet if the property is the creation of the public and not of the titular owners, the valuation has nothing to do with the justice of the rates; and only accounting for actual investment or virtual reinvestment can tell anything about the real source of the property. A third man says that rates should be lowered because the property could be duplicated for a sum so small that much less than the present rate would pay a fair return on the investment. Yet most of us believe that the return to an enterprise socially serviceable should be not an equivalent of fair interest on what one could now establish it for, after someone else has taken the risks, conducted the experiments, and learned the way, but on the actual cost of the enterprise with compensation for the risks taken. The point here, however, is not that one or another of these points of view is right, but that no common ground exists on which they can be argued except the ground of what has actually happened. The accountant is the scientist who shows the facts, and the prime fact is the actual history of where the property came from and where its product has gone. Then if the community wishes to take the unearned increment, the accountant, as an accountant, has nothing to say; if it wishes to allow men very high return for risks which they have taken, as an accountant he is not concerned; if it wishes to play the game of "heads I win, tails you lose", he again, as an accountant, is not interested. He should keep his accounts, moreover, with an eye single to the truth and not allow himself as an advocate to color the facts with his theories of social justice. Not until the accountant realizes that he is a scientist, and that his work is the discovery of impartial fact, will the public have at its disposal the facts that will enable it to apply its notions of policy with eyes open. To fear the truth is the depth of cowardice, or knavery.

What is the actual investment in a property? As suggested by the supposititious case that I cited earlier in this paper, from one point of view investments may be deficits as well as original sacrifice—when one realizes that operations which establish future producing power and are paid for out of product are taken from the pockets of the owners. Exactly akin is depreciation suffered and not made good—when the product is not enough to make it good. In both cases the cost or sacrifice has been

incurred—and that is usually what we mean by investment. Unless we know what has been the actual cost or sacrifice, including risk, we cannot know whether the compensation is adequate or not. That is why I am arguing for the preservation on the books of actual sacrificial cost (if I may use the word in that sense), as distinguished from any combination of that cost with risk elements, valuation elements, duplication elements. We do not want nondescript combinations of figures. We want isolated causes.

Now allow me to suggest how these sacrificial costs may be preserved free from entanglement. In the first place, though I have suggested that depreciation not made good out of product is a sacrifice and a cost, it should be clearly shown for what it is. Some persons might suggest that as I call it sacrifice, not only when invested but afterwards when worn out, I should neglect to note the depreciation and therefore let my original investment in the plant remain on the books at original cost. It is true that for a going concern I recommend cost rather than valuation as the asset figure; but truth demands that the cost figure shall be the present cost figure and by that I mean the original cost figure revised with regard to the facts that have concerned it. If, for instance, a machine has depreciated one fourth—through either use or obsolescence—with respect to the purpose for which it was originally bought, the purpose of the original sacrifice has so far been served, and its present cost is but three fourths of its original cost. In spite, therefore, of the theory that cost and not valuation is the true basis for the accounts, the asset must be written down. To base the accounting on costs rather than on valuations does not in the least confuse capital and revenue. Any judgment as to the fairness of rates or prices or profits must be based on a recognition of both capital and revenue. The front-face accounting will either show directly or give a basis for both of these; first, the original capital costs, plus new investments and reinvestment of profits, less consumption of capital assets; second, the actual profits and the distributed profits. From these figures every competent judge can see for himself, with his own visual angle, whether the profit derived is fair—taking into account those elements of risk, social service, etc., which apply to the particular case. The moment any elements of risk, capitalized earning capacity, cost of duplication, or selling valuation, get into the accounts of a going con-

cern the front-face view has been lost and no one knows just what the figures mean.

My general principle I have illustrated rather fully with the case of interest on capital. I wish to add just a word on rent, for I am not ready to adopt Mr. Dickinson's point of view. Many accountants say that rent is a profit, not a cost. This seems to me a perversion of the economic doctrine that rent does not add to the cost of production. Laying aside refinements of economic theory and taking things in the rough, the natural cost of an article is the cost at the margin of production—the cost at which it just pays. If rent is paid, however, a countervailing advantage must somewhere exist else the work should not be done. Then the costs exclusive of rent are below the margin, or standard. To fix prices at that point is to transfer the benefit of the advantage to the customer and sell goods at a point so low that it cannot persist. The accounts, in other words, have led to a false conclusion with regard to normal cost. The rent, which merely measures the amount by which the *particular* articles are produced *below* the margin, is in this case an element in the measure of *standard* cost, and so should be included in the cost calculations. If the manufacturers are owners of the real estate, rent to them is an income not as manufacturers but as real estate owners. If they pay rent to others, rent is to them a clear cost and should be so reported. I have been speaking, of course, of economic rent, as distinguished from mere interest on the money invested in improvements. The interest portion of rent is subject to the considerations which we have already made.

You will note that I have not attempted to discuss the detailed application of these matters to particular processes. I have thought it well, at least for the sake of variety, to devote my discussion to some very fundamental matters, upon which, if we can once come to an agreement, anything approaching uniformity of accounting methods must be based. Nothing like standard units of cost can ever be learned while fundamentals are treated differently.

COST UNITS

WILLIAM ARTHUR CHASE

Eminent economists have asserted that the requisites of production are two, labor and appropriate natural objects. Labor is either bodily or mental, while of the other requisite appropriate natural objects it is seen that some objects suited to the supply of human wants exist or grow up spontaneously. There are caves and hollow trees capable of affording shelter; fruit, roots, wild honey, and other natural products on which human life can be supported. But, even here a considerable quantity of labor is generally required not for the purpose of creating, but of finding and appropriating them.

Nature, however, does more than supply materials, she also supplies powers. The matter of the globe is not an inert recipient of forms and properties impressed by human hands, it has active energies by which it coöperates with labor and which may even be used as a substitute for it.

The finished product of one industry may be the appropriate natural object of another. Wool, for example, is the raw material of the carder and spinner; the finished product, the yarn, that of the weaver. The labor which terminates in the production of an article fitted for some human use is either employed directly about the thing or about a previous operation destined to facilitate, perhaps essential to, the possibility of the subsequent ones. One of the modes in which labor is remotely instrumental to the production of a thing is when it is employed in producing subsistence to maintain the laborers while they are engaged in the production. This previous employment of labor is an indispensable condition to every productive operation on any other than the very smallest scale. Productive operations require to be continued a certain time before their fruits are obtained, and it follows that besides the primary and universal requisites of production—labor and natural agents—there is another requisite without which no productive operations beyond the rude and scanty beginnings of primitive industry are possible; namely, a stock previously accumulated of the products of former labor. This accumulated stock of the produce of labor is termed capital.

The institution of private property being assumed, the three requisites of production, then, are labor, capital, and land;

understanding by capital the means and appliances which are the accumulated results of previous labor, and by land the materials and instruments supplied by nature, whether contained in the interior of the earth or constituting its surface. Since each of these elements of production may be separately appropriated, the industrial community may be considered as divided into land owners, capitalists, and productive laborers. Each of these classes, as such, obtains a share of the produce. No other person or class obtains anything except by concession from them. The remainder of the community is in fact supported at their expense, giving, if any equivalent, one consisting of unproductive services. These three classes, therefore, are considered in economic science, or as it is sometimes called, political economy, as making up the whole community.

Owing to a most unfortunate and unscientific use of the terms "productive" and "unproductive" by the average business man, and, I am sorry to have to admit, by some accountants also, a word of warning and of explanation may not here be out of place.

"Productive labor" by economists is defined to be labor that terminates in the creation of material wealth, and "unproductive labor" that which ends in immediate enjoyment without any increase of the accumulated stock of permanent means of enjoyment.

The labor of saving a friend's life is not productive unless the friend is a productive laborer. To a religious person, the saving of a soul must appear a far more important service than the saving of a life, but he will not, therefore, call a missionary a productive laborer unless he teaches, as certain missionaries have in some cases done, the arts of civilization in addition to the doctrines of his religion.

Looked at in this light, the labor of the factory superintendents, of the men who sweep the floors, of the administrators, of the bookkeepers, of the public accountants, to whose competent advice and supervision in these modern times the success of the enterprise is often largely due, of the lawyers who examine and prepare the legal documents, of the doctors who bind up broken limbs—the labor of these is just as productive as that of the workmen who handle the looms, or who work at the machines.

Having considered, perhaps sufficiently for our present purpose, as elements of production, the factor of labor, we will glance for a moment at the remaining two, land and capital.

First, as to land: The only person besides the laborer and the capitalist whose consent is necessary to production, and who can claim a share of the produce as the price of that consent, is the person who by the arrangements of society possesses exclusive power over some natural agent; and his remuneration for its use is entitled rent. And the rent which any land will yield is the excess of its produce beyond that which would be returned to the same capital if employed on the worst land in cultivation or use. Hence, as a prime element in the cost of production, we get rent.

Secondly, as to capital: Capital is wealth appropriated to reproductive employment, and it is hardly necessary to remark when addressing so distinguished an audience that money is no more synonymous with capital than it is with wealth. Industry is limited by capital; it is the result of saving, and it is constantly being consumed; it is kept up not by preservation, but by perpetual reproduction.

Capital is usually divided into two species, circulating and fixed. An example of the former would be that portion of capital which consists of materials. The tallow and alkali of which soap is made, once used in the manufacture, are destroyed as alkali and tallow and cannot be employed any further in the soap manufacture, though in their altered condition as soap, they are capable of being used as a material or an instrument in other branches of manufacture. Capital which fulfils the whole of its office in the production in which it is engaged by a single use is called circulating capital.

Another large portion of capital, however, denominated fixed, consists in instruments of production of a more or less permanent character, which produce their effect not by being parted with, but by being kept, and the efficiency of which is not exhausted by a single use. To this class belong buildings, machinery, and all or most things known by the name of implements or tools. But even these, no matter of how permanent a nature or how well repaired, must in the course of time wear out or cease to be valuable; and it cannot be considered that the entire cost of a given product is known unless or until the replacement of this particular portion of capital constantly, though slowly, being consumed is provided for; and hence arises as an element in the cost of production what is known as depreciation.

If all that is produced is not consumed, a profit will result. As the wages of the laborer are the remuneration of labor, the profits

of the capitalist are the reward of abstinence. They are what he gains by forbearing to consume his capital for his own uses; and for this forbearance he requires a recompense, which is resolvable into three parts: interest, insurance, and the wages of superintendence.

Of the gains which the possession of an amount of capital enables a person to make, a part only is properly an equivalent for the use of the capital itself; namely, as much as a solvent person would be willing to pay for the loan of it. This, which as everybody knows is called interest, is all that a person is enabled to get by merely abstaining from the immediate consumption of his capital and allowing it to be used for productive purposes by others. The remuneration which is obtained in any country for mere abstinence is measured by the current rate of interest on the best security—such security as precludes any appreciable chance of losing the principal.

The rate of profit, however, greatly exceeds the rate of interest. The surplus is partly compensation for the risk. By lending his capital on unexceptionable security a person runs little or no risk, but, if he embarks in business either as an individual, a member of a firm, or a stockholder in a corporation, he always exposes his capital to some and in many cases to very great danger of partial or total loss. For this danger he must be compensated, otherwise he will not incur it.

If he should, either as an individual, a member of a firm, or a stockholder in a corporation, devote his time and labor to the conduct or control of the business, he must be rewarded for such devotion. To exercise control with efficiency, if the concern is large and complicated, requires great assiduity and often no ordinary skill; and this assiduity and skill must be remunerated.

But I understand this factor, which the older economists called "wages of superintendence", the modern economists do not recognize as an element of profit.

Such, it is conceived, is a brief presentation of the economic principles which apply in determining the various factors which analysis discloses as elements in the cost of production; and it only remains to inquire whether it is possible to exhibit the various data in such a form as to meet at one and the same time the requirements of the economist and those of ordinary business.

On the threshold of this inquiry I am confronted by a slight difficulty. So much of the so-called accounting work of the coun-

try has in the past been done, or professedly done, by manufacturing stationers, self-styled systematizers, bookkeeper-out-of-employment accountants, pseudo-experts, *et hoc genus omne*, that it may well be that heretofore accounts have been presented in such a manner as to be of little service to economists, while it is undoubtedly true that the business man after having paid heavily for them has not infrequently found them woefully misleading.

It is also true that the profession of reputable and competent public accountancy has itself broadened and deepened in the last twenty-five years (we have had for example the passage of certified public accountant laws by various states and greater activity on the part of the American Association of Public Accountants) and some things that in the past may have been looked upon in a certain light are now regarded in a different and a truer. But taking the best practice of the profession today, I venture to think that it is the custom to present accounts relating to the cost of production in such a manner that, with perhaps a slight change in one or two particulars, the information which for the purpose of scientific knowledge economists need lies ready to their hands. If this is not so, then I sincerely hope that the progress of this debate may disclose wherein the defect exists.

Bearing in mind what has been already said as to the finished product of one industry's being the raw material of another, may we, or may we not, assume that the raw material of the wholesale merchant will be the finished product of the manufacturer, while that of the retail tradesman will be the output of the wholesale merchant, and that of the railroad that which is necessary to produce its freight and traffic earnings?

If we may, then, since it is more natural to begin at the beginning, we will, bearing in mind that in this event one general principle will govern all, take the case of a manufacturer, one if you please who uses as his raw material some product of nature in its primary state and who produces therefrom some finished article which he distributes or sells to the wholesale merchant. I conceive that it is quite immaterial and indeed a mere waste of time in a discussion such as this to enter too much into details. I imagine that what is important is that we should get our genera right and our species right, and that then the sub-species may be left for our present purpose to take care of themselves. Inasmuch as most businesses are now carried on under a corporate form, we will assume this condition, not forgetting that

what is said will be equally applicable fundamentally to an individual enterprise or to a copartnership.

We shall have then three genera or main divisions, and the first two will be of the nature that in their main outlines are likely to be insisted upon by accountants and business men, and will consist of what are often called a manufacturing account and a profit and loss account. The first is charged with the materials on hand, if any, at the beginning of the period, with materials purchased, with freight inwards, with labor, with fuel or power, with what is sometimes called indirect labor and expense, with repairs, with depreciation, with rent, in short with those factors that are considered to make up the prime cost of the commodities manufactured. If we add up these various factors set down in a given period and deduct the materials on hand at its close, we arrive at the cost of the commodities manufactured in this period so far as the elements of cost are composed of the factors stated. If we further deduct this remainder from the sales, minus returns, allowances, and trade discounts, we arrive at what is known as the gross profit; and this statement of gross profit is what the manufacturer and trader will, I think, very properly be likely to insist upon.

Now the question is, is there any objection in principle on the part of the economist to division number one's showing the gross profit?

In division number two we are likely to get such items as, wholly or in part, wages of superintendence, which may include officers' salaries (or in the case of an individual enterprise, proprietors' salaries): general office salaries and expenses such as stationery, postage, etc.; and salesmen's salaries and expenses; in a word those expenses which must be incurred before the commodities produced can be placed in the hands of the customers of the concern. If we add up these various factors and deduct them from the credit balance or gross profit brought down, we arrive at the net profit. Again, I ask, has the economist any objection to this form of the second division? There is a certain amount of dispute among accountants as to what, if any, proportion of the charges in division number two should appear in division number one; but this I imagine is a matter with which the economist will not be greatly concerned. Indeed I am rather inclined to think that for the purpose of his inquiry he might

regard divisions one and two as forming one whole, but this is a point upon which I seek more light.

It will be observed that I have so far said nothing about interest, and now I suggest a third division. In this on the credit side I would ultimately show interest on capital, which having been previously charged in the first division would emerge ultimately in the third.

As to this interest: It has usually been the custom in the case of individuals and copartnerships to charge and credit interest on the capital employed, though not in the case of corporations. Now I suggest that this should be changed, and that in the accounts of corporations also interest on the capital and surplus, if there be any surplus, should be computed in accordance with the law of interest referred to in a former part of this paper, and that such interest should be charged and credited. Our third division would then assume this aspect. On the credit side would appear interest and there would further be the net profit, or insurance as Mill calls it, that is, compensation for risk, brought down from the second division. Thus the two elements of profit would be differentiated and shown in the accounts, and could be readily ascertained.

In the case of the individual or copartnership as to interest: Division three would be debited and the credit would usually be finally to the proprietors' current accounts, in that of the corporation, the credit being to surplus, and as I have already indicated, the elements of rent, wages of superintendence, and interest would be shown and differentiated as charges or factors in the cost of the product.

I do not anticipate that any serious objection on the part of accountants would be raised to the foregoing method of statement except possibly as to interest in the case of corporations; but it is no answer to a suggestion to say that because a thing never has been done therefore it never should be done.

It is often a characteristic of the average practitioner to be the slave of technicalities; to the great practitioner, technicalities are merely the handmaids of principles. I remember as a boy being greatly impressed with the verbiage of legal documents. I thought within myself, can any one but a very superior person ever be sufficiently learned to compose a thing so fearfully and wonderfully made; but I was greatly relieved and not a little amused when I came to read Blackstone to find that this great

lawyer described much of this verbiage as nothing, to use his own expression, but "attorneys' rubbish."

The method which I have outlined would be comparatively simple if in its application it were necessary to deal only with factories or departments whose output consisted of products having one value and made from the same formula. For example, suppose within a given time a factory produces at a total expense of \$1000 500 rolls of roofing of the same quality, it is obvious that the cost of each roll will be \$2. But many factories are engaged in producing many different things of different qualities. These have to be thrown into groups until each group is brought within the principles I have briefly described. Now, although this can be done, and as a matter of fact is done in certain factories highly equipped and organized, yet the average manufacturer is very likely to tell you that the game is not worth the candle, that the expense is out of proportion to the value of the result, and that his system of more or less accurate guessing at individual costs is good enough for him as a practical man.

But I venture to think that, even if the time is still far distant when accurate individual or unit costs will be obtained in every industry in the land, nevertheless, accounts dealing with enterprises as a whole, presented in the manner I have referred to—which could be done with little or no extra expense or economic waste—would afford valuable information, not only to the business world, but also to the economist—in this way: the economist could show in dealing with the various data what percentage of the cost must be allocated to materials, to the various classes of labor, to the wages of superintendence, to rent, to interest, to depreciation, and so on; and what proportion of the profit has been awarded to the capitalist as the reward of abstinence. And it seems to me that the profit and loss account and balance sheet (to use Professor Robinson's happy phrase) of a given society or nation made up in this way would be a splendid result to achieve.

In conclusion, I should like to be allowed to say that I feel that the Certified Public Accountants of the United States are much indebted to the American Economic Association for the invitation that has been given them to take part in its discussions. Before Bacon, the plan as to religious, social, and physical phenomena was often to spin a theory out of one's own ill-informed mind and then to try to make the facts fit the theory; since

Bacon's time, at any rate in relation to physical and economic science, the more rational method has been adopted of investigating first and then of making the theory fit the facts. And in the investigation of the facts which afford the data of economic science the economist strictly so-called and the accountant are I think but parts of one whole.

It has been the custom for many years among more or less illiterate persons to indulge in rather sorry jests at the expense of the votaries of what they have denominated the dismal science of political economy. Such, however, should learn that in its bearing upon the best interests and welfare of society it is a science and a philosophy,

"Not harsh and crabbed as dull fools suppose,
But musical as is Apollo's lute."

As the same great poet has said,

"Peace hath her victories
No less renowned than war,"

and when mankind shall resolve to devote the energies they have expended in endeavoring to destroy one another to the investigation of the phenomena with which they are surrounded—which is probably what they were placed in the world to do—with the object of improving and ameliorating as far as may be their ethical, social, and physical condition, it will be seen, I believe, that what Mill called the present low state of improvement will in comparison with the past advance by leaps and bounds; and when this happy time shall have arrived, I venture to predict it will be recognized that those who have contributed not the least to this result have been these same economists, and that their painstaking inquiries were among the noblest efforts that could engage the attention of the human mind.

ACCOUNTANCY—DISCUSSION

EDWARD L. SUFFERN: Without attempting to address myself directly to the discussion of either of the two papers which have been presented to us, I shall take the liberty of offering my contribution to this meeting rather in the form of queries than as an affirmative statement.

Notwithstanding this utterance, I do make the following declaration: That, in my opinion, the manner in which the grouping of the units of costs is made should be largely determined in accordance with the specific information which the general accounting system is designed to develop.

I concede that proper economic principles must be fully recognized in every system, and that there must be due consideration of every cost, but I can conceive of conditions where the greatest business intelligence would be required in order to determine correctly how these costs should be grouped. I have in my mind the problems which already are presented to the Tariff Commissions, problems which we hope they will have fuller opportunity to study than they now enjoy. Their problem, as I understand it, will be to determine the relative costs of the units produced, in a great variety of forms, for the purpose of making comparisons as to the relative costs of these units at home and abroad.

Now my first query is, what elements of costs shall be considered for such a comparison? Is it not clear that a distinction must be made between such elements as are permanent and inherent and such as are accidental? For example—the factors absolutely inherent to each are the cost of material, the cost of labor (direct and indirect), the process cost, and the interest on costs during the period of conversion—these are permanent elements, without which no unit can be produced anywhere. In addition to these, however, there may be at least one other element which might affect the cost of production, and which should be considered from the standpoint of a comparison which is supposed to cover the whole range of any particular form of production. This is a certain form of taxes. Wherever taxation may be so levied as to become in effect a tax on output, such tax must be considered as an inherent part of the cost of production; but, if the tax be a tax on property value or a franchise tax, it need not be so considered, in my opinion, because it will then fall in another group.

This other group I call the secondary group, and it consists of the accidental items, each of which it is true is an element of cost, but each of which is affected by the conditions under which the business may be conducted rather than by the character of the business itself.

These elements are taxation and insurance, which are affected by the situs of the business; interest on capital, which would be largely affected by the ratio existing between capital requirements and capital invested; and depreciation, which is affected by the quality of the original investment, the character of usage, and developments of invention. All of these are elements which must be considered if due regard be paid to economic principles; but how shall they appear in a scheme of comparative costs? Can we separate the determinate and indeterminate factors?

My next question relates to the proper application in a general accounting system of the economic principle of exhaustion of natural resources where the same affects costs. Upon what basis shall a reserve be established? Can any definite rule be formulated, or shall the basis conform to the conditions controlling each case? If the latter, what principles shall govern? Can any element of chance be allowed to affect the application of the principles? In the case of ore beds, coal areas, and mines of other minerals, should it be insisted that provision be made to offset depletion through a retention of profits, wherever possible; or shall we assume that the economic principle of conservation may be suspended in such cases and no regard need be paid to its existence?

These questions are asked not from any purpose to inject casuistry into the discussion, but rather with the idea of trying to develop the thought that the application of the economic principles to any accounting system must be carefully and intelligently considered, and must include the conception of the peculiarities and individualities controlling each case. What is needed in any accounting system is that there shall be developed through it a record or history of facts, so displayed that they shall present an intelligible and intelligent review of transactions and conditions for the purpose of assisting practical conclusions as to future operations.

J. C. DUNCAN: If I interpret Mr. Dickinson correctly, he does not believe that rent and interest should be considered as costs of production, but rather views them as deductions from

profits. To the economist profit is a return over and above all rent and interest charges. If the owner of an enterprise does not secure that return it would be better for him to lend his resources to some one else who would pay him the rent and interest and assume the risks of production. Moreover, if he should lend his land and capital, he can then work for some one else and get a wage, so that even the entrepreneur's salary or wage should be considered a part of costs, because he is entitled to pay himself as much as some one else would pay him.

Mr. Dickinson in considering rent and interest as deductions from profits really gives those returns to the owner of the land and the capital, if he is not the proprietor of the enterprise. Under such a condition our point of difference is that with Mr. Dickinson's attitude the rent and interest are not included and segregated to the various divisions of the enterprise and put in as elements of costs directly.

To the speaker's mind all such charges are really direct additions to the cost of production and should be apportioned directly to the various departments involved. Rent and interest should not be regarded as divisions of profits, because profit does not start until provision is made for these items.

Professor Cole brings out one point that to the speaker's mind is very important, namely, "costs contain in themselves no element of profit for the enterprise." To the speaker's mind no profit should be added between departments, because profits can not be determined until sales are made, and should not be introduced as departmental charges. The speaker believes that if we are to establish our accounting on an economic basis all the items which in any way contribute to the make-up of the article produced should be included in the operating charges of the department. That would include material costs, labor, interest, rent, salaries, and even taxes, whether the manager is owner or not. If we take this point of view, we have an economic basis for the accounting system of any business and for all conditions of ownership of capital, land, and the use of labor.

Mr. Dickinson refers to the method railroads use in treating their rental and interest accounts. According to the rules of the Interstate Commerce Commission, these charges are considered deduction from profits, and not operating costs. If operating expense has the full significance it should have, it seems to the speaker that this omission of rental and interest charges really

leads to an incorrect statement. Rent, interest, and taxes are really operating costs, because they are contracted by the operating plant of a railroad and should be included in that division of the accounts. Unless they are so included, we have an incomplete basis for the determination of the various costs of transportation. To the writer's mind a good many of our difficulties in railroad accounting would be very largely eliminated if a serious effort were made to arrange our accounts so that the freight, passenger, mail, express, and other railroad activities would show up the sources of income and have charged to them their various expenses rather than to show up the accounts in their present way. As a matter of fact, one great cause of the present confusion of railroad accounting is due to the fact that the income side of railroad accounts is shown up on the economic basis, while the expenditure side of the income account is presented from an engineering point of view. The receipts side of the income account shows the amounts received from the freight, passenger, and the various other operating departments; it shows the rental of their lines. The expenditure side is based upon what the costs are to run the various parts of the business considered from the engineering point of view. In the latter case we have shown money expended in the maintenance of way and structure, in the maintenance of equipment, the sums used in traffic, and conducting transportation; but it is all considered from the viewpoint of the entire road, making it utterly impossible for one to have any definite idea of what each class of service takes from the treasury; while we do have shown what each class of service earns.

In addition to all this the present railroad income account distinctly keeps out of operating expenses the items of rentals, interest, taxes; and even depreciation is not regarded as a cost of operation.

Certainly the term "operating expenses" must be defined as meaning something quite different in railroad accounting from what it means in manufacturing accounting; and, moreover, with this present method of handling the expenses and receipts, we do not get a satisfactory basis for determining our costs.

Would it be better for all concerned if our railroads' income accounts were so stated that both the expenditures and receipts sides were put on the same basis? The speaker feels that a serious effort should be made to carry the proper proportions of rent,

interest, taxes, and depreciation to the various departments, like the freight, the passenger, and all others; and, furthermore, he feels that those expenses are really costs of operation and should be so regarded.

AN OUTLINE OF A RAILROAD'S INCOME AND PROFIT AND LOSS ACCOUNT

OPERATING EXPENSES		TRANSPORTATION REVENUE	
Maintenance of Way and Structure		Freight	
Maintenance of Equipment		Passenger	
Traffic		Mail	
Transportation		Express	
General		Milk	
		Switching	
		Bridge Tolls	
		Other	
OTHER THAN OPERATING		OTHER THAN TRANSPORTATION	
Taxes		Rents of Track	
Rentals		Rents of Property	
Interest Charges		Dining Cars	
Discount on Securities		Interest on Stocks and Bonds owned	
<i>Balance to Profit and Loss</i>			
PROFIT AND LOSS			
Depreciation		Net Income	
Dividends			
Balance to Surplus			

ALLEN R. FOOTE: I am very glad to be present on the occasion of the discussion of this question. Those of you who attended the meeting of the American Economic Association held in Washington twenty years ago this day, will remember that at that meeting Professor Henry C. Adams submitted an exceedingly able paper under the title of "Statistics as a means of Preventing Abuses by Corporations."

When Professor Adams had concluded his paper, I had the courage to say that I agreed with his paper in all respects excepting its title. I wished the title to read "Statistics as a Means of Preventing Abuses of Corporations."

I then suggested that the American Economic Association could do no more important or serviceable work than to formulate a scientific statement of costs in which every item of cost would be placed in a proper grouping to give to it its full economic significance, and that when such a cost statement had been devised

a system of accounting should be recommended that would bring it into practical use.

The discussion this evening is the first response of which I have knowledge that has been made to that suggestion. Therefore, I am exceedingly pleased that this discussion has been arranged, and am greatly encouraged by the propositions that have been here advocated.

I hope to see the time come when the corporation laws of every state will contain a provision requiring every corporation to have a fixed date for its fiscal year, and when the stockholders of the corporation will annually select a certified public accountant to make an audit of its business affairs and prepare and submit to the stockholders a scientifically formulated statement of its true economic condition.

When this is done, such statements will contain all the information that can be reasonably required by the federal and by the state governments on which to base their policy for the regulation and taxation of corporations. This will obviate the necessity of the employment of an army of government inspectors.

L. G. POWERS: I wish at the outset to bear testimony to the great pleasure I have taken in the presentation of the subject to which we have listened. It calls attention to the need of more definiteness and a greater application of scientific principles to the work of accountancy. Accountants desire to have recognition as professional men, and a recognition of their work as a branch or subdivision of science. It is a requisite of science to have an exact and definite terminology, and scientists are constantly endeavoring to use terms with definite meaning and never to use one term with two different meanings: and accountancy, which has made great and notable progress in the last fifty years, cannot be designated as a science until it develops a scientific terminology.

One particular in which accountancy is very deficient in this respect is the accountant's use of the word "reserve." This word is used with at least three and sometimes more distinct meanings. Thus, it is given the meaning of an asset set aside for a definite purpose, as, the assets of a reserve fund such as those of a government sinking-fund, which can only be used for the purpose of amortizing specific debts. A second use of the term is that which gives it the meaning of a portion of the undivided surplus of a

commercial enterprise, which has been set aside for a definite purpose. A third use of the word "reserve" is met with in the case of enterprises that do not write off depreciation from their asset accounts, but carry a credit depreciation account to which they give the designation "reserve." Such reserve does not represent an "asset" nor a portion of "undivided surplus", but merely an offset to asset values. It is a negation of values. Errors and misconceptions arise when accounts are so kept that the word "reserve" is used with one of these meanings and its actual significance is not disclosed. Greater error and misconception arise when accountants construct a balance sheet on which a single credit item includes all three of these classes of reserves.

As a result of a failure of the average accountant to differentiate these three classes of reserves, the average balance sheet conveys but little exact information to one who is uninitiated in the secrets of a business, and oftentimes such sheets are very misleading. Thus, for illustration, the triple use of the word "reserve", without any effort to differentiate between the three distinct facts of accountancy to which reference has been made, is resorted to at the present time by many public service corporations to assist them in collecting exorbitant charges for their services, in order that they may provide what they call a proper reserve for depreciation, bad debts, etc., but which in reality is for the purpose of creating an enormous undivided surplus unjustly, at the expense of the public.

Another wrong business practice that is fostered and preserved by this triple use of the word "reserve" is that employed by corporation officers, who, under cover of this term, conceal the fact that the assets are being improperly used up in current operations, and no proper provision is made for depreciation.

These are a few of the many vicious business results and business practices that are today fostered by the accountants' failure to apply scientific usages to their business, and to differentiate the various classes of data which they include under the common word "reserve."

Accountants may say, as some of them have said to me, that business men do not want to separate these classes of data by any distinct terminology, and that they must yield to the business men's wishes in the matter. I should like to ask, is this the proper attitude of the profession, if it is seeking to come before the public in the capacity of an impartial witness with reference

to the business standing of the enterprises whose affairs it is called upon to audit in the joint interest of the public, the stockholders, and the business management?

A. LOWES DICKINSON: I have listened to Professor Cole's paper with great interest. It seems that the main point of difference between his views and my own lie in the treatment of rent and interest, which Professor Cole considers should, in part, at any rate, be treated as cost. An interest rate entirely exclusive of the element of risk is a myth and no such rate in practice exists. Even the rate of two per cent on United States government bonds, can not be said to be wholly without risk, for the reason that it is quite conceivable that such bonds might in time of national adversity fall very considerably in value. The more I consider the subject the more I incline to the conclusion that in practice at any rate—it would seem to him also in theory—interest and rent (so far as the latter represents a payment for the use of land and buildings and not any charge for other services) could only be considered as a division of profit, and that the adoption of any other principle must lead to injustice and error. This may be emphasized by referring to the Tariff Commission, whose duty it is to inquire into the cost of manufacture of various articles in this country as compared with similar articles abroad. To give effect in such cost to any item of interest is, in fact, to take into consideration as part of the cost the higher profit which the manufacturers in this country realize as compared with those abroad. While the propriety of an import duty to offset the increased cost of production in this country might be justifiable, it would be very hard indeed to justify an import duty for the purpose of enabling manufacturers and others to continue to earn the much higher rates of interest and profit which prevail here.

Referring to Professor Duncan's interesting address and charts, I would say that the problem of segregating railroad operating expenses between freight and passenger traffic is not a new one, but it has hitherto been found impossible of solution. I agree with Professor Gilman in thinking that a much larger proportion of the expense now treated as applicable to both classes of traffic might be segregated, but the case which Professor Gilman cites has shown a very great diversity of opinion between experts on this subject. I believe I am right in saying that three sets of experts dealt with this question in that case—one set produced figures

to show that the passenger traffic of the railroad in question yielded a profit of something like \$1,000,000 a year; the second set showed equally conclusively that the expenses were about equal to the receipts; whereas, the third set showed that this class of traffic resulted in a loss of approximately \$1,000,000. Such figures show that any methods at present in use must be wholly unreliable. While many items of expense might be divided which are not so divided at present, I would call attention to the item of maintenance of way and structures, involving approximately one quarter of the total operating expenses. It would require very considerable ingenuity to divide this expense between freight and passenger traffic on any but a most arbitrary basis.

On behalf of my profession and myself I wish to express thanks to Professor Cole for his very interesting paper and particularly for the high standards of accounting which he upholds therein.

SOME DESIRABLE GOVERNMENTAL POLICIES FOR RIVER IMPROVEMENT

WM. W. HARTS

There are probably few students of economics who will not readily concede that the prosperity of mankind and the progress of civilization depend in no small degree on the facility of communication. The products of the mine, of the farm, and of the factory all require markets; and practically everything used by the average city dweller pays its tribute to this form of industry. The wonderful commercial development in all parts of the world during the past hundred years, probably exceeding in this particular the progress of all previous recorded time, may be said to date from the application of steam as a propelling power, and the use of the electric telegraph. These two agencies alone, in their various methods of application, have increased the facilities of communication beyond the most liberal belief of a century ago, and have contributed enormously to this unprecedented commercial growth.

Many nations have recognized the public importance of this principle, and have accepted as part of their governmental policies some provision for aiding the freer communication between their parts. As an instance, the importance of the Suez Canal as a connecting link in the communication between England and India was seen to be such that England could not safely leave it to the control of any other nation. Its management, therefore, was secured by the British nation as a public policy. Other instances abound. The subsidies to the merchant marine of Japan and England, the state-owned and state-aided railways of France and Germany, the development of the canals and waterways of Holland and Germany, and the public highways of Switzerland and Italy, all show how widely the principle of aiding transportation at public expense has been admitted to be desirable, if not necessary, as a governmental policy.

In the United States the development of our natural resources, unparalleled elsewhere in the world, has been largely stimulated by an enormous railway expansion. With us, as with other nations, the principle of governmental aid to transportation lines was early recognized as a means of accelerating commercial

growth. Almost from the time of the formation of the federal government large sums were spent for national post roads; but about 1832, when the first locomotive was successfully operated, the expenditures in this direction became fewer and finally ceased. Later, the government's helping hand was similarly extended to the railroads, and their construction was fostered in various ways. The transcontinental railways were thereby enabled to build their lines connecting the interior of the country with the Pacific Coast. They were financially assisted by a guaranty of their bonds, and extensive grants of public lands were made to them by the government. So important were these steps that it seems safe to say that but for aids so conferred the growth of the Pacific Coast region would still be more than a generation behind.

Among the early instances of governmental aid in this country were the river improvements, the need for which was forced upon the attention of the public through the impetus given river commerce by the successful operation of boats propelled by steam. In the period of time that has since intervened, our interior rivers, as means of communication, have passed through many vicissitudes. Since the days before the railways, when they were important lines of transportation and were filled with vessels and freight, their fortunes have gradually changed. Their importance has often dwindled, and their usefulness has been reduced, until now the longest river in the world, the one having in its present condition perhaps a greater transporting power than any other, is flowing almost idly into the Gulf of Mexico. And this has occurred, notwithstanding the fact that this river passes through a country not excelled anywhere for the fertility of its soil and the industry and energy of its people.

As early as 1830 the government took steps toward the improvement of some of our inland streams. Under President Jackson a board of army engineers designed works for increasing the depths and lessening the dangers on the Tennessee and Cumberland rivers. Grants of public land were made to various states to aid the works of this kind, and surveys for new projects were occasionally made at public expense. Some of these projected works were later completed by the states of Tennessee and Alabama, but were badly hampered by the financial panic of 1837, and were finally abandoned on the approach of the Civil War. For a few years thereafter the work done was desultory in character, but about 1870 the present practice of appropriating

federal funds for river betterment began to be recognized as a public policy. This met with great objection at first at the hands of those advocates of "States' Rights" who insisted on leaving such work to the states and localities directly benefited; but little by little the practice of federal improvement became more settled, growing up by gradual steps from very modest beginnings to its present extensive scale.

The occasional urgency of some improvement at an isolated place where a small expenditure would result in a comparatively large benefit was the usual reason put forward in the early years for appropriations for local necessities. Small local projects were thus often undertaken without any regard to the effect at other places or the relative importance of the locality. This method was soon firmly established as an adopted rule of practice, and in this way a lack of coördination in river work arose. The political opportunities afforded in this connection soon became apparent, and a new and powerful reason was perceived for the continuance of the system. The activity of the representatives of the people in certain sections was actually thought at one time to be measured by their success in securing new work for their districts; but the prevalence of this idea has been largely reduced in late years. There seems to be still some degree of personal triumph in obtaining appropriations for their localities, although the relative necessity therefor may be clear. Even with these disadvantages, however, works of enormous value have been accomplished, in spite of their local and independent nature. Instances are numerous. The Louisville and Portland Canal around the falls of the Ohio River, the canal and locks around the rapids of the St. Mary's River, the pools created on the Ohio River near Pittsburg, and the locks in the Monongahela, have all justified their cost many times over by the public benefit derived.

But notwithstanding the large amounts expended on many of our streams and the excellent facilities frequently afforded, there are few that do not show a decline of commerce in recent years; although for a time the improvements made seemed to cause a promising growth. Various reasons are given for this decline, such as the increased efficiency of railways, the aggressiveness of labor combinations that hamper river navigation at inopportune times, the lack of experienced river pilots (owing to the greater attractions of other vocations), and the absence of sufficient and

suitable terminal facilities. Before discussing any desirable governmental policies for river betterment, the main causes leading to this diminution of commerce should be definitely presented.

A casual observation of the various methods of communication shows at once that the decline of river traffic has kept pace, to a marked degree, with the growing development of railways. This coincidence ought therefore to be scrutinized. It may even appear on first examination that the function of rivers is to be entirely supplanted in time by rail transportation, and that further steps to aid river traffic will be rendered useless. This has been frequently asserted by enthusiastic railroad advocates, and is worthy of careful attention. They state that in the economic race the railways, by their many advantages, have so far distanced the rivers that no hope remains of ever making the latter sufficiently useful to warrant the cost of their improvement for navigation.

It is stated that since 1837 freight rates have fallen from $7\frac{1}{3}$ cents per ton mile to $7\frac{1}{2}$ mills per ton mile, or to about one tenth of the early cost. This rapid reduction gave a great advantage to the rail lines, and the possibility of the transshipment of cars from one line to another and the ease of making extensions and sidings were additional favorable features that tended to cause freight to seek this means of reaching its destination.

It seems clear that if the influence of rail transportation on river traffic could be always defended solely on an economic basis, the usefulness of most of our rivers would soon diminish to insignificance. But a closer examination of the relationship discloses methods that have been adopted by the railroads which seem unfair to river navigation, and strongly indicate a fear of successful competition. These doubtful methods have often been alluded to, and include the reduction of railroad rates between competing points to a figure below the cost of either river or rail transportation, so that boats cannot run at a profit and are then abandoned. In such cases railroads have been allowed under the law to recoup their losses by increased charges to non-competitive points—a measure not equally possible to river boats.

On some rivers, also, lines of steamboats have been temporarily established by the railroads themselves, operated at ruinous rates for a time, and then withdrawn after the competition of independent boat lines had been silenced. The possibility of such action, it is said, has at times been held up as a threat by rail-

road interests in order to suppress incipient competition. It is reported that even now on the lower Tennessee River no cotton may be carried by a boat beyond the first railway crossing it encounters, without danger of retaliation. Railroads are also known to have purchased stock in boat companies, presumably to control their activities; and in many other ways they have unintentionally admitted the formidableness of their river rivals. All these devious means of putting an end to water competition are encouraging, in a way, to those who are interested in the development of our waterways; for they show to what lengths the railroads will be willing to go to prevent encroachments on their business. They are, after all, silent witnesses to the effectiveness of river competition.

In some foreign countries the rail rates are maintained by their laws at a point somewhere above the river rates, in order to encourage river traffic. Probably no rule could ever be applied here such as is adopted in Germany, where rail rates are said to be kept purposely about 20 per cent above river rates; but in all fairness the least that one could expect in this country is such governmental control of the practice of the railways as will prevent unjust discrimination in rates against the river, whereby a powerful company may crush its weaker but often effective competitor.

In order that capital may invest in any enterprise, there must be reasonable security and a fair chance of profit. Until the river transportation business can be protected against unfair competition, so that investors may not thereby be forced out of their projects, there will be little hope of rebuilding the river traffic.

For these reasons the first governmental policy I would suggest would be *closer railroad regulation*. Whether this would be sufficient to enable a rejuvenation to take place in river affairs is still a matter of uncertainty, but as a preliminary step it seems indispensable. Certainly nothing of much importance can be accomplished without it. There are indications that the cost of railroad transportation is nearing its minimum, and that the facilities for rail haul are growing less and less able to meet the growing requirements of the country. It seems only reasonable, therefore, to expect that certain classes of bulky freight will turn more and more to the rivers in the future, and that the necessities of the country will require greater service from them.

Rivers should therefore have a fair chance to justify their care, without favor and on economic grounds alone; and those that do not survive this test should be abandoned in favor of the more efficient carriers.

It is believed by many who have watched the unequal contest between rail and river that when the day shall arrive (not now far distant, it is hoped) on which unjust competition shall be ended, the railroads will find in their search for increased efficiency that the rivers are their greatest friends, whose cheap carrying power they cannot overlook. Already some steps in this direction have been taken. The increase of traffic through the St. Mary's River of late years has largely resulted from the development of lake transportation under the supervision of the railroads. Should this same interest some day extend to our rivers, we shall again see our streams busy with freight.

The local and often disconnected character of river work in the past, even when it has underlying it an inseparable and intimate relationship, has already been mentioned as being a disadvantage. My second desirable governmental policy is *greater coördination of work*.

In the early days of government aid to our rivers many projects of merit were undertaken, and were carried along by appropriations made every few years. As conditions changed from time to time the sums appropriated for each varied, the amounts often being dependent on the state of the country's finances and often on the local pressure with which the work was urged. It thus happened that completion was seldom provided for in the beginning, but only a continuation of improvement; and years were sometimes consumed in doing a work of several seasons. If large enough sums were provided, contracts were usually let; but in every case when the funds were exhausted the progress of the work was arrested until another act could supply more money. These periodical delays were often enough to more than neutralize all the efforts of the engineers toward economy, and frequently disheartened those citizens who were interested in the project as a business enterprise. There seems no doubt among those accustomed to good business methods that any engineering construction when once determined upon should be finished or guaranteed all the funds necessary to push it to completion. Otherwise there is inevitable loss in the idle invested capital and in deterioration of the structures. This disconnected method of

carrying on our river work was followed for many years, and is still the rule for many projects. But in the course of time considerable dissatisfaction with the delay in the execution of some adopted projects arose among the people of the localities to be benefited, and many engineers publicly discussed the wasteful methods in vogue. The delays could not be ascribed to the engineers or to the high cost of the work, but rather to the disadvantages arising from the methods of supplying funds.

At length, however, improved methods were determined on, under which many of the causes of dissatisfaction could be obviated. The first step toward a new dispensation was the adoption of what is known as the "counting-contract system." By this system a work can be carried forward through several years under a single contract, the appropriations being made at proper times, each in an annual bill; the total being kept within an authorized sum. In this way, instead of waiting for the usual river appropriations, contracts can be let for the full amount of the authorization, although the act making provision therefor may appropriate only a small part of the total in immediately available funds. This was the first step, and an important one, toward the better coördination of work.

A new plan under which annual instead of biennial appropriations will be made is now proposed. This will be another great assistance, if consistently followed, and will prevent many delays.

But these improvements did not change the practice of adopting local projects based on local needs. Each proposed plan was examined and reported on, and if finally adopted was executed more or less independently of its relationship to other parts of the system. Nearly all the rivers of the interior part of this country are tributary to one trunk stream, and as such are to some extent interrelated. To enable boats to be easily transferred from one river to another, the depths of channels and width and length of locks should in some measure correspond, in order that streams belonging to the same system and possessing similar physical characteristics may afford easy interchange of boats.

Until recently there has never been an official body charged with the duty of testing the relative necessities of connecting streams in advance of the adoption of projects for federal improvement. Furthermore, our navigable streams vary widely in importance, and there has been no authorized way of arranging

them in proper order so that the most useful should receive the earliest attention. Sometimes tributaries were selected for improvement before the trunk stream was ready, and less worthy streams were occasionally provided for in advance of more useful ones. The manifest defects of such a method became more and more apparent as the volume of work grew, and finally of necessity led to another important step in the direction of better co-ordination. This was the provision in 1902 for a Board of Engineers for Rivers and Harbors, which was to sit as a board of review and report on the projects submitted to it from the local districts in obedience to legislative directions. This at last gave some measure of coördination, and was one of the most important steps ever taken by the government in the history of this class of work. Now a single body can view the entire system and correlate its parts, whenever a river project is examined under governmental direction. The board can test the worthiness and relative importance of each project and determine the necessities of the stream, all in relation to the needs of the country as a whole. It may withhold approval if not found to meet its tests, or modify previous recommendations in order to bring the proposed project to its own proper rank.

But an important provision is still lacking. This board can not propose new works or arrange a plan of execution beyond what is submitted to it. It resembles a court which can decide a case only when duly presented, but cannot initiate any action of its own. It would appear to be in the direction of progress to endow this board with more ample powers; and it does not seem a vain prophecy to predict that this will eventually be done, if only by degrees.

There has been a demand among those interested in this class of work for a comprehensive plan of construction applicable over the whole interior of the country. Here is the means, already at hand. There have been criticisms that no new plans can be presented for government adoption which will be so designed as to keep all the system in harmony. Here is the organization, ready for instructions.

The second policy, therefore, that I would suggest is greater co-ordination of projects, to be secured by enlarging from time to time the functions and responsibility of the present duly constituted river and harbor board, to enable it to prepare a comprehensive plan of improvement of all our navigable rivers, having

due regard to their present needs and prospective usefulness; to suggest the more worthy streams for earliest work, to arrange the distribution of available funds within such limits that those works once begun may be completed within a reasonable time, and to see to it that the less important shall wait until the more useful ones are earning suitable dividends for the public by accommodating an adequate volume of traffic.

This body should also be expected to propose new work and new lines of investigation and experiment, and should be endowed with all the vigor and initiative necessary thereto. It should be required to present to Congress periodically a list of new works to be undertaken, together with a studied scheme of construction that would give the best and quickest returns for the money expended. This method of solving a difficult problem will probably not be satisfactory to those who desire a new organization, such as the establishment of some bureau of public works, or a complete upheaval of present methods; but it presents the advantage of being ready and trustworthy, requiring no new adjustment of duties, but only an amplification of authority; not revolutionary, but in the direction of present development; economical, and on the whole worthy of a trial whenever the present plans are to be improved.

The third policy which is suggested herein is *coöperation*. By coöperation is not meant the loose partnerships between the government and private individuals or corporations which so often result in one-sided benefits, but it intends an assistance on the part of the communities and localities to be benefited, in order to render more useful the channels constructed by the government. Coöperation may be tendered in many ways and many works are now being carried on with the financial assistance of the state, city, or home community. But reference is made here to only one class of coöperation; one that is usually the most necessary, that is, that involving the construction of terminals, landings, and warehouses.

It has often been asserted that an important reason for some river work was the temporary prosperity induced by the large expenditure of money in the vicinity. Some have also said that the reduction in freight rates on the competing railroads was the main object to be accomplished by these expensive structures; but all must finally admit that unless the improved waterway comes to be used enough for river traffic to pay back to the public

a benefit equivalent to a reasonable dividend on the investment, the work will be an economic failure. Channel development must rely mainly on its usefulness to the public as a means to easier or cheaper transportation, or it cannot long receive popular support.

The government in its efforts for easier communication is concerned primarily with channels, but landings are equally necessary if the channels are to be used. Rivers must have transfer facilities for exchanging freight with rail lines or other rivers, storage facilities and warehouses must be provided, and some efficient means of loading and unloading vessels must be furnished to complete the work. Local communities can coöperate in this, and can demonstrate at the same time their sincerity in their demands for governmental aid. They can coöperate with the government by constructing or providing for terminals. A channel without terminals is like a railroad without sidings or freight yards. An engineering periodical recently stated that the terminal charges against railroad freight between Philadelphia and New York were fourteen times the cost of transportation alone, and that the terminal charges at Chicago and New York about equaled the cost of transportation between these cities. The enormous importance of this feature as an element of rail freight cost is generally recognized, but its bearing on river improvement is only just beginning to be understood. The construction of terminal facilities has not yet been undertaken by the government, and may never be; but without terminals and adequate landings much of the money spent on channels is wasted.

It was hoped that when good river channels were provided suitable terminals would immediately follow, but this has been true only in a few instances. The early method of making landings almost anywhere along the stream to pick up freight or put it ashore has passed; for the delay and expense of handling freight up and down steep banks and the lack of security and shelter without warehouses, are disadvantages that weigh heavily against the river. It seems hardly necessary to insist that towns should build and equip terminals and warehouses in advance of any possibility of their use, but they can at least purchase water frontage and definitely promise aid to anyone who will construct greater facilities whenever they may be needed. Assurances of meeting these requirements when they arise can be given. Even with these facilities provided, some public organization is nec-

essary, and some public control of the water fronts indispensable to prevent adverse ownership of the landings by corporations or private individuals who may desire to limit the use of the river in their own interests. Frequently railroads secure all the water frontage they can in order to be in strategic control of the freight situation, and individuals often charge excessive rates for their own profit. In addition to channels, then, we must not only have loading and transfer facilities, but must also have some port organization to enable the public to use their facilities on reasonable terms.

In order to accomplish this coöperation, a very simple means presents itself. This is to make the adoption of a project by the government and the expenditure thereon of public money contingent on the construction of adequate terminal, landing, and transferring facilities by the local interests benefited, or on some satisfactory assurances of the local bodies that such facilities will be provided, open to the public on reasonable and equal terms. Some localities have already provided free landing places. Nashville and Chattanooga, Tennessee, have each public landing wharves, practically free, and Cincinnati has a paved bank for river boats; but an examination of the landings on the Ohio River and several of the tributaries disclose the fact that nearly all water frontage in the principal river towns is owned or controlled by the railroads.

In the report of the Commissioner of Corporations on transportation by water in the United States, 1910, the following is found:

"Probably the greatest deterrent to water terminal advance is the present adverse attitude of the rail lines toward independent water traffic, in their exclusive control of frontage, in refusal or neglect to coördinate with general water traffic, and in refusal to prorate generally with water lines in through movement of traffic. Until this underlying relation of rail to water systems is adjusted on some common sense basis of harmony, there is little hope of great advance in water terminal conditions."

If, however, the localities would provide for landings, and have some port organization to protect river commerce, they will coöperate to a considerable extent in providing facilities for navigation, and this adverse attitude of the railroads would soon be of small importance. It is believed that the government should insist on this coöperation among the local organizations as a

condition precedent to government work, in order to be assured that the terminal question should be at least partially solved before undertaking new projects.

To summarize, therefore, the three suggestions presented for consideration as desirable governmental policies are as follows:

1. Closer railroad regulation, to protect river traffic from unfair competition and improper control.

2. Greater coördination of work, by giving greater power and responsibility to the present river and harbor board that it may provide for a comprehensive plan of river improvement, and for coördinating its different works in such a plan.

3. Greater coöperation on the part of the localities; more particularly directed at first to requiring them to provide for terminal, loading, and transfer facilities.

In submitting these three suggestions there will be found nothing impossible of attainment, or even impracticable. There is nothing proposed that has not already been adopted in a measure and, in fact, these suggested policies are only logical extensions of steps already taken.

INLAND WATERWAY POLICY

EMORY R. JOHNSON

The trend of public sentiment in favor of improving the navigability of the waterways in the United States and of making more systematic and economical use of the country's water resources is unmistakable. This sentiment finds expression in the numerous local waterways associations, in the National Rivers and Harbors Congress, the National Irrigation Congress, the National Conservation Congress, in the reclamation work of the state and national governments, and in the recent adoption by Congress of the plan of an annual rivers and harbors bill.

While the desirability of conserving, for present and future use, the water resources of the United States is generally admitted, there are many who question the wisdom of large expenditures from the national treasury for the canalization of rivers and the construction of canals. Even the advocates of waterway improvements are uncertain as to the means and methods by which the program is to be carried out. The time seems opportune for considering the conditions precedent to the successful development and use of natural and artificial waterways within the United States.

The first requisite of success in waterway improvement is the limitation of the number of works to be executed to those that can be financed and can be carried to completion within a reasonable time. Unless the work undertaken can be confined to the river and canal projects of major importance, there is little prospect that our inland waterways will ever be made of much service to commerce. The zeal of local interests, pressing for the immediate commencement of a host of projects, is the chief obstacle to the successful completion of any work.

The difficulties of the situation grow out of our federal scheme of legislation and administration, and there is little prospect of any very radical change in our machinery of government action. The Newlands bill providing for a National Waterways Commission subject solely to the President and possessing full discretionary power in the use of the funds appropriated by Congress was an iridescent dream that made slight appeal to practical men in or out of Congress. We can not hope to lessen radically, if we

would, the control of river and harbor improvements by Congress acting through its appropriate committees, and the government may confidently be expected to act through the Corps of Engineers of the Army in the execution of authorized work.

The situation as regards legislative policy and methods is, however, by no means hopeless. The firm stand taken by the last two chairmen of the House Committee on Rivers and Harbors in favor of a national plan of waterway improvement and of going ahead with the works that have been begun instead of multiplying new projects, the disposition of Congress not to authorize any new works in advance of an affirmative report as to their feasibility by the Corps of Engineers, the declared purpose of the President not to sign a river and harbor bill that does not provide solely for the execution of such works as the United States Engineers have declared to be of general public importance—all this and more indicates a growing sense of the need of a more truly national policy in legislating for the improvement of waterways.

Permanent reform in political processes can usually come only by evolution, by the pressure of a clearly-defined public sentiment. Congressional methods of river and harbor legislation can be—are being—modified by the education of the public. The creation of an intelligent public sentiment in favor of adhering to a national policy of waterway improvement has been made somewhat easier by the investigation and report of the National Waterways Commission. The task ahead of us is to continue the work of education until not only the President but also Congress—always responsive to intelligent public sentiment—shall feel compelled to adopt the national point of view.

The survey and construction work connected with waterway improvement should remain with the Corps of Engineers. Somewhat greater discretion in the execution of authorized works should be given by Congress to the Secretary of War and the Chief of Engineers, and the Corps should be increased in number. When added responsibility has been placed upon the Corps and its numbers have been increased, it will doubtless be possible and desirable for it to develop a more specialized, and thus a more efficient, organization for doing its river and harbor work.

The second requisite of success in waterway development is the adoption of a practical plan of financing the work. In dealing with this problem, conservative and practical wisdom are especially

important; but it can not be said that the advocates of an extensive program of waterway improvement and construction have made clear how the waterways are to be paid for. Our policy has been, and is, to pay for all river and harbor work out of the current revenues of the national government; and this plan of paying as we go is to be commended. At the same time, it is clearly evident that present revenues are not large enough to enable Congress to proceed with the development of our inland waterways at an economical rate, or at a rate that will make our waterways commercially useful within a reasonable time; if, indeed our present slow methods can ever give us waterways adapted to business requirements.

Unless expenditures for pensions and the army and navy establishments can be reduced—and this is highly improbable—the funds required for the extension and improvement of waterways can be secured only by increasing taxes or by borrowing money. As between these two alternatives, the safer and wiser policy to choose is to increase taxes and to continue to pay for river and harbor improvements and canal works out of current revenues; but it is doubtful whether, as a practical measure, the funds required for waterways can be secured either by the imposition of a special tax or by an increase in general taxes made for the particular purpose of securing the capital required for investment in waterways.

Such a fiscal measure could, probably, be adopted and carried out, if systematic and scientific budget-making and the careful correlation of expenditures with definite sources of revenue were a part of our federal financial methods; but such methods of budget-making are difficult to adopt in a government which separates sharply its executive and legislative branches. Here, again, it is necessary to consider waterway policy with reference to the actual facts of government action and to look for progress by evolution. Advance is being made in the budgetary and fiscal methods of the national government and the financing of public works will be increasingly scientific in the future.

If bonds are issued to secure funds for the improvement or construction of waterways, provision should be made, when the bonds are authorized, for the payment of the interest and principal of the debt: and the only sources from which the money for these payments can be obtained are taxes (general or special) and tolls for the use of the waterways. The policy, in this country, has

been to improve and maintain the waterways, even canals, for the free use of the public. Ought this policy to be adhered to in the future?

There have been strong reasons in the past for developing the waterways as free highways. In the first half of the last century, the government—the states for the most part instead of the nation—improved and extended the waterways in order that the country might be occupied and its products marketed. The railways were in their infancy, and their services were inadequate to meet the public need for transportation. In the latter half of the century, waterways came, more and more, to be fostered as competitors and regulators of the otherwise slightly regulated railroads.

Now that we have subjected railway rates and services to effective public control, the waterways are, primarily, to be considered, along with the railroads, as an essential part of our general transportation system. The waterways are now to be developed, if they *are* to be developed, mainly in accordance with the demand and the necessity for the facilities they can afford. To some extent they will continue to act as competitors and regulators of the railroads; but, for the most part, they will supply additional transportation facilities complementary to those furnished by the widespread system of railroads.

This change in the economic function of inland waterways makes questionable the necessity and the advisability of relieving their users of all tolls. If tolls may wisely be charged for the use of canals and canalized rivers, and if the charges thus levied can be made to bear the operating and maintenance expenses, and possibly to contribute something toward the capital construction costs, the problem of financing a program of waterway improvement and extension will be simplified. In this connection, the experiences of France and Prussia—the countries that lead all others in waterway development—is instructive.

To carry out the large program of waterway improvements adopted in 1879, France borrowed funds at 3 per cent. Tolls were abolished, and both the capital and the maintenance costs were borne by the state. The legislation of 1903 changed the policy of 1879 by requiring the various beneficiary parties to contribute half the cost of constructing new works. Tolls and traffic dues may be charged on these new waterways to reimburse the localities and private interests that advance half the

cost. The state does not deem it to be necessary to borrow funds to meet its half of the costs; its contributions are to be made from current revenues; but the localities or parties in interest who advance the other half are permitted to issue debentures.

Prussia meets the expenses incurred in waterway improvements from current revenues, if they suffice, or from special loans authorized by law, if such loans are found to be necessary. The law of 1905 requires the provinces and public corporations to guarantee the expenses of operating and maintaining new works and to pay interest upon and to amortize one third of the capital cost of those works. Tolls and dues are levied on canals and canalized rivers. On rivers regulated without locks and dams, charges may, under the imperial constitution as it has been interpreted up to the present time, be levied only for the use of special facilities created in the interest of traffic.

In general it may be said that the policy of both France and Prussia is to return to the practice of charging tolls on those waterways upon which large sums are expended and to require the localities and parties most directly benefited by a new waterway to share with the state the costs of construction and maintenance. This is a more conservative financial policy than has previously prevailed, but it makes readily possible and practically certain the steady improvement and extension of inland waterways, despite the large cost of creating and maintaining waterways adapted to the requirements of present-day and future commerce.

There seems no valid, or at least no irrefutable, reason why the United States or the states should not henceforth charge a moderate toll for the use of a canal or for passing a lock in a canalized river. The funds thus obtained would, naturally, be devoted, first, to the payment of operating and maintenance expenses; second, to paying the interest on any bonds that may have been issued to improve or construct the waterway; and, third, to the amortization of the principal of the loan.

It will be urged, and with truth, that but few rivers or canals in the United States can be made fully to finance their operation, maintenance, and capital costs. The question, as regards tolls, is not whether all canals and improved rivers should be required to reimburse the government for all funds expended upon them, but whether each waterway should be required to pay such tolls as the waterway can bear without restriction of traffic. The policy of levying such tolls for the use of the enlarged Erie Canal

as its traffic will bear would be sound in principle; and the same may be said of the Ohio River when the government shall have provided a reliable nine-foot channel.

In so far as waterways cannot finance themselves they should be improved and constructed from the current revenues of the federal and state governments and not by borrowed funds, unless the payment of the interest and principal of each loan is provided for from a specified tax or from some particular source of revenue. Up to the present time, this has not been the accepted method of financing public works in the United States. In the past, our government activities, especially those of the national government, have been comparatively few, and our sources of revenue have been abundant; but, of late, federal functions have been rapidly multiplying and we are beginning to realize that the national revenues are not capable of indefinite increase. To equip our country with up-to-date water transportation facilities will require a large expenditure of funds, and the work can not be accomplished at all unless the financial difficulties are recognized and conservatively solved.

In this connection, however, it should be borne in mind that river improvement and regulation may be desirable, and even necessary, not alone for the uses of navigation, but also for the development of water power, the prevention of destructive floods, the reclamation of overflowed lands, and, in some sections, for the irrigation of arid districts. The problems connected with the conservation and use of the water resources of the country for navigation, power, and productive purposes, and for supplying urban communities must be solved together. National, state, and local governments have been dealing with these problems without sufficient coöperation.

There is need of a greater degree of association. This is as true of the work of improving and extending waterways and equipping them for commercial uses as it is of the other related and equally important tasks of making the water resources of the country available for power, production, and municipal uses. Formerly, the national government left the regulation and development of waterways to the states; latterly, the states have been looking mainly to Congress. Neither policy is wise for the present or future. The nation and the states should work together as they are beginning to do, and as they must much more closely in the future.

This is the third requisite of success in carrying out a program of waterway development—the coöperation of the national, state, and local governments. Each of these political authorities possesses rights limiting the powers belonging to the others, and each has duties commensurate with its rights and powers. The nation has control over interstate commerce and thus over the channels of all rivers and canals usable for interstate traffic, while the stream bed and the use of the water for power, for production, and for other purposes belongs to the state. The minimizing of floods by constructing reservoirs and foresting catchment basins, and the reclamation of river lowlands by levees and other works belongs, in theory, to the powers and duties of the states; but the fact that almost every important river drains and traverses several states renders effective action concerning flood prevention, reclamation, and irrigation practically impossible by the states without the coöperation of the national government.

It will be necessary for the states to entrust to the federal government the exercise of some of their rights over water resources and to remunerate Congress for at least a part of the expenditures incurred in doing, on behalf of the states, what they acting severally are incapable of accomplishing. It requires no profound study of the situation to realize that the full utilization of the water resources of the United States can come about only by carrying out simultaneously plans for regulating the flow-off of water, for providing for its use for power, irrigation, and navigation, and for confining the streams to permanent channels adapted to the needs of navigation and so leveed, where necessary, as to prevent the inundation of bottom lands. Such comprehensive plans can be executed only by joint action of the states and the nation and by an equitable distribution of expenses among the central and state governments and the local communities.

How may this coöperation be brought about? Probably not without difficulty, and certainly not without keeping the necessity for joint action constantly in mind. A beginning has already been made. The assistance given by the Sanitary District of Chicago and the State of Illinois to the creation of a commercially useful waterway from Lake Michigan to the Mississippi River, and the plans of the state for the development and use of the water power of the Illinois River afford a conspicuous illustration of the coöperation of local and national authorities. Other instances might be cited. Increased coöperation can be secured in the future

in two ways—by the initiatory action of the states in offering to work with and to assist the federal government, and by action of Congress whereby appropriations for the improvement and extension of waterways shall, when practicable, become available only upon the fulfilment by the states or the municipalities of certain designated obligations. Some such conditional appropriations have been made; possibly the practice can be developed into a general policy.

The fourth condition precedent to the successful creation of commercially useful inland waterways—and the last requisite to which reference will be made in this paper—is the equipment of the rivers and canals with public terminals that are adequate to business needs, are technically up-to-date, and that provide for the direct and economical transfer of traffic from canal or river to rail and from car to barge or boat. A river channel however reliable, or a canal whatever its cross section, can be of comparatively little use unless traffic can be gotten to and from it readily and economically. The traffic development of a railway or a waterway is today conditioned even more definitely by terminal than by line facilities.

This fact seems to have been more clearly recognized in Europe than in the United States. The Rhine River, for instance, has sixty-two harbors equipped, as fully as commercial needs require, with storage and transfer facilities. At forty-three of these terminals the direct transfer of goods from trains to boats and river to rail is possible. Many of the harbors include large basins, some of which are used for the transfer and storage of commodities, while others are constructed to enable big industrial plants to locate on water frontage. Each city constructs its own harbor with but little, if any, aid from the state, the expense being borne by the city, aided in some instances by private interests. When the city's current revenues are insufficient to meet the cost of these works, funds are borrowed, moderate harbor dues being charged to meet interest and sinking-fund requirements.

The policy of the German states and cities in coöperating to create water transportation facilities is well illustrated at Frankfort-on-the-Main. During the past thirty years—but mainly between 1883 and 1895—Prussia has spent somewhat less than two and a half million dollars canalizing the Main from the Rhine to a point somewhat above Frankfort. This is what the state has done; Frankfort has done more. Between 1883 and 1900, the

city spent \$2,500,000 on harbor works, and is now engaged in the construction of a great commercial and industrial harbor and terminal that will cost, when completed, \$18,000,000.

The development of water terminals being as essential to the creation of inland water transportation facilities as are the provision and extension of navigable channels, the success of a program of waterway improvement depends almost as much upon what the cities may do as upon the course followed by the national government in coöperation with the states. Each municipality located upon an inland waterway must either own and develop its water terminal facilities or must so regulate them as to prevent private monopoly from throttling competition. In any case, there must be such public wharves, transfer, and storage facilities as the traffic of the waterway may require; close coördination of rail and water lines must be insisted upon; and provision must be made for the systematic expansion of port facilities in accordance with the growth of traffic.

Ordinarily the city can best accomplish this by owning all the water front, by leasing a part of the front to corporations for the establishment of terminals, and by constructing and operating such public port facilities as are needed to serve adequately the industries within the city and the traffic upon the waterway. Furthermore, the city, with such assistance of the state authority as may be necessary, must link up and keep in active coördination the railroads and the waterway. This will prove no easy task for the average American city.

This brief consideration of the requisites of success in carrying out a program of waterway development has emphasized the obstacles to be overcome. These are numerous and serious, but they can be surmounted. The present need is that the public shall definitely understand the difficulties to be overcome, and shall realize that the task to be performed requires the coöperation of the national, state, and local governments and, in some instances, of private beneficiary interests.

The development and conservation of the rich water resources of the United States is a duty to be met with zeal and intelligence by the present generation and by those that are to follow. It is highly important that the policy adopted should be as broad as the work to be accomplished, and that the methods followed in carrying out the program should be as sound and conservative as the task is large and difficult.

THE ATTITUDE OF THE STATE TOWARD RAILWAYS

A Discussion of the Question of Nationalization

ERNEST R. DEWSNUP

As a matter of practical politics, the problem of the desirable relationship of the state toward the railway has been settled in most countries of the world by the adoption of a policy of nationalization. In but three or four of the more prominent countries does the state take no part in railway management, and, in the case of England, one of the two great strongholds of independent railway enterprise, it is interesting to note that, in nearly all of her colonies, possessions, and protectorates, the imperial or colonial governments have freely undertaken the responsibility of railway management. The record of the last few years shows very clearly that the tide of railway nationalization is strong and steady. The acquisition, by the state, of the Western Railway of France, of the West of Flanders Railway of Belgium, of the railways of Japan and Switzerland, the extensive purchases of private lines by Austria, and the resumption of state operation by Italy, are examples in very recent years of the vigor and vitality of the movement. The forces underlying this development have been very complex. Political unity, social amelioration, industrial progress, and financial gain have all been influential motives, varying in relative intensity, of course, in different countries. If, however, one examines the history of that period from which the substantial growth of nationalization really dates, namely, the third quarter of the nineteenth century, the importance of political motives in promoting this movement is very conspicuous. Thus, in Belgium, as in Switzerland a quarter of a century later, the fear of foreign financial control of the railway system was a powerful factor in inducing the resumption of state activity in the railway industry. In Austria and Italy the relation of the state railway system to political harmony and to military strength was regarded as a very important one. Because of this fact, the rehabilitation of state railway systems inaugurated in the decade 1868 to 1878 must not be viewed as a vindication, justified by the history of the previous generation, of the economic benefits of state as against private management of railways. The record of state railway management up to that time had been a very discouraging one. In Belgium, for instance, for five years after

the opening of her first mileage, the state constructed and operated all railways, but the financial results were so unsatisfactory that the extension of the system was entrusted to private enterprise. In Austria and Prussia the inability of the state to secure adequate financial returns from its railways led to the temporary abandonment of the policy of state expansion. Similar experiences, it will be remembered, were the lot of certain states of this Union. There were no facts in 1870 which could be adduced to establish the economic advantage of state railway systems. On the other hand, there were conspicuous examples of the successful working of private roads in America, in England, and even in Continental Europe. At the very time when the Prussian Diet expressed itself in favor of continuing further with the project of a national system, private enterprise was clamoring for railway concessions, in spite of all restrictions that the government had imposed upon construction and working. One of the considerations that induced the Belgian government, in 1871, to resume its railway activities was the too successful competition of the private companies with the state lines. Some companies, it is true, had not met with success, but the financial failures of such roads seem to have been mainly due either to the excessive restriction of governments constitutionally inclined to paternalism or to the fact that they had been located, under the influence of the state, in regions of scanty population and poor economic possibilities.

Apart from ideas of the promotion of political unity or political aggrandizement, some fear was entertained that this new industrial power, promising to become of huge magnitude, might become a political danger, if left in private hands. The unconciliatory and undiplomatic spirit, manifested, at times, by some of the railway managers, served but to foment such a feeling. A more general influence in favor of the movement towards nationalization was the reaction against the *laissez-faire* teachings of the Smith school, which, by this time, had gained considerable strength, as is concretely evidenced by the economic congresses of Eisenach and Milan in the early and middle seventies. There was thereby induced a more favorable attitude towards the intervention of the state in the field of economic production than at any previous period of the century. Since that time the affection of the peoples of Continental Europe for government paternalism has, if anything, grown greater, and, as a whole, they are inclined to accept, without argument, the theory of the beneficence of state railways.

Nor is this feeling limited to these countries. Twenty-five years ago, Professor Hadley, in concluding his book on railway transportation, said, "There is a strong popular feeling, to a large extent unsuspected by those in authority, in favor of government ownership of railways as a system." Undoubtedly, in England and America, there are today, among the working classes particularly, strong leanings in this direction—the doctrinaire product of social idealism but nevertheless to be reckoned with in the near future. A similar, though less extensive, impression has apparently been made on other classes of society. I have sometimes wondered whether the large increase in the number of state employees, which has naturally accompanied the growth of entrepreneurial and regulative functions on the part of the state, has not had an appreciable influence upon public sentiment. The ideas of the majority of such employees as to the functions and capacity of the state are apt to be affected by their very relationship to it, and these would easily be disseminated, by their medium, amongst a considerable section of the public. This concept of the general beneficence of state policy has fostered the belief that, under the ultimate influence of state management, the railway system may be so organized as to promote the social amelioration and industrial progress of the community in a manner impossible under conditions of private operation. During the last generation, governments undertaking railway nationalization, and other advocates, have laid increasing emphasis upon this assumption. They have unrolled before their audience, the people, an attractive picture of railway systems without capital charges, levying minimum rates and fares, with innumerable resulting advantages for every one. To what extent this picture has found realization in actual conditions we shall shortly see. But however that may be, its influence on the progress of nationalization is unquestionable.

Interwoven with the strands of this medley of politics and social idealism, here and there appears the motive of artificial stimulation of economic development. The desire of relatively undeveloped communities to hasten the natural growth of their estates is not a surprising one, nor is it strange that they should select the state management of railways as their means to that end. Whether their object is best attained in this way is another matter. The construction of a larger amount of railway mileage may be thus secured, with attaching increments of traffic, but this does not in itself justify the policy. The direct financial losses usually

involved, the indirect losses arising from an arbitrary diversion of national resources of labor and capital from other interests, the effect of the distraction of the attention of the government from those very important elements of national welfare which are not economic, the possibility of the stimulation of private enterprise, under judicious supervision and with suitable aid, into the accomplishment of its aims, all need to be taken into full account; but, unfortunately, such communities rarely stop to cast a trial balance of gains and losses.

Such are some of the leading influences that have led toward nationalization, each one of which would form a most interesting study. Obviously, only the bare outlines of the general movement could be sketched in this paper, sufficiently distinctly, may the wish be expressed, to indicate that, from the point of view of permanent public welfare, there is still justification for further discussion of a problem which practical politics has declared settled.

The leading aspects of such a discussion are twofold, (1) the effect of the state upon the railway, (2) the effect of the railway upon the state. Under the former head falls the question of the financial remunerativeness of state railways, an important, though not conclusive, test of efficiency. Varying conditions of construction and operation render the correct application of this test a very difficult one. For instance, to attribute greater efficiency to Australian railways as against British railways, because of a 4 to 4½ per cent dividend as against a 3½ per cent would be ridiculous. Owing to the value of land, state regulations, and standards of construction, the capital per mile of railway in Great Britain is five times that of Australian railways, some of the recent extensions of which, by the way, have been made at the low figure of \$5000 per mile, sufficient to lay down but the flimsiest of tracks with the absolute minimum of facilities. Differences of capitalization and of rate levels may make interest rates incomparable things. A still further difficulty appears in the frequent unreliability of the financial statements of state undertakings of large capital and revenue accounts. The utilization of other state funds for the reduction of railway debt is an attractive financial manipulation which has notably vitiated the significance of quite a few capital accounts. Discussing the industrial domain, with particular reference to factories for the provision of army and navy supplies, Bastable says, "On purely financial grounds, state in-

dustries of the kind are open to serious criticism, owing to the very defective system of keeping accounts which is characteristic of such establishments. The amount of invested capital is hardly ever properly estimated; receipts that should go to capital are assigned to revenue, and expenditure that ought to be met from revenue is defrayed from other state funds or by borrowing." And as he reminds us in a footnote, Richard Cobden, in his last speech in the British Parliament, now some forty-six years ago, protested that, "Throughout the inquiries before Parliamentary committees upon our government manufactories, you find yourself in a difficulty directly you try to make the gentlemen at the head of these establishments understand that they must pay interest for capital, rent for land, as well as allow for depreciation of machinery and plant." In his illuminating articles upon the Belgian state railway system, published some four years ago in the *Revue Politique et Parlementaire*, M. Marcel Peschaud charged the state's system of railway accounts with the greatest confusion, credits relating to the railway having been distributed among five different budgets. Among other defects he noted the fictitious nature of amortization as represented in the railway accounts, with the result that, "it is not possible", he said, "to fix with accuracy the actual amount of capital expenditure, nor, in consequence, the real charges relating to this capital." This same element of fictitiousness in the amortization accounts appeared, he stated, in the Prussian Railway accounts. Elsewhere he remarked, "Nothing is more difficult than to ascertain exactly the financial results of a state enterprise. This is true, no matter what may be the country or the industry concerned. While simplicity and clearness of accounts are the law of private industry, complication, fiction, and obscurity are the rule in state industries." In state railways, therefore, we need apprehend no danger of understatement of capital percentages of surplus earnings, and while such figures, whether correct or incorrect, are not adequate indications of relative efficiency, they may still be used, in a rough sort of way, to throw some light upon the general financial productiveness of state railway systems.

Generally speaking, the results have been poor. For instance, in 1907, quite a favorable year for railway traffic, the state systems of Europe, excluding Prussia and Saxony, earned possibly 3 per cent upon their reputed capitals. Thus France (l'ancien réseau de l'État) made 1.87 per cent, Italy 2.18.

Norway 2.64, Sweden 2.75, Denmark 2.92, Württemberg 2.47, Austria 3.01, Belgium 3.29, Bavaria 3.45, Hungary 3.50, Imperial Railways of Alsace-Lorraine 3.58, Switzerland 3.62, Baden 3.90 per cent. In 1908, when the effects of the economic depression which commenced in the United States in the fall of 1907 really began to be felt, the average return fell considerably below 3 per cent. Such results indicate that most of these railways, on a proper representation of capital probably all of them, were actual burdens upon the finances of their respective states, for the latter have usually had to pay from $3\frac{1}{2}$ to 4 per cent, or even more, for the necessary capital. It has been urged that most of the state railway systems of Europe show little or no financial success because the governments have used their railways, not for purposes of gain, but for the promotion of trade and industry by low transportation charges. The argument is a very sophistical one. If this were a characteristic of state management, then the most important state railway administration, that of Prussia, would not have been paying dividends of 5, 6, and 7 per cent for the last thirty years. Bismarck, it is true, promised the Prussian Diet that, if the purchase of the private railways were authorized, railway surpluses should be used for improvement of the system, not for the financial benefit of the treasury. But fat railway surpluses have proved too much even for Prussian self-restraint, and the state has hugely enjoyed them. There is not a railway-owning government of Europe but would be glad to secure help to its national finances from the profits of railway working. The low railway charges of such countries, in so far as they are low, are to be largely credited to the irresistible pressure of very limited individual purchasing power. But while passenger rates are low, there is reason to doubt whether this can be said of freight rates, an adjustment which savors more of political expediency than of economic advantage. Attempts to make state railways more profitable have not been unknown. But recently, Austria and Hungary have appreciably raised their charges. Russia, Denmark, and other states, at different times, have made general increases, in some instances realizing to their discomfiture that such increases may destroy sufficient traffic to leave unaltered, or even to reduce, gross revenue. In countries where the average income of the great mass of the population is low, charges that appear low from the standpoint of, say, an American, may actually be as high as the traffic can be made to

bear. It is not denied that, in a number of instances, the taking over of private lines has been signalized by some reduction of rates and fares, a preliminary taste as it were of the future good things that the government had in reserve, but the process has hardly been a continuing one. Take, for instance, the state railway system of France as against the private companies, and one finds that, whereas, from 1888 to 1908, the state receipts per ton kilometre increased from 5.15 to 5.23 centimes, those of the private companies fell from 5.66 to 4.20 centimes. Even in passenger kilometre receipts, the favorite altar for the propitiatory sacrifices of government, the decrease in the state system was but $9\frac{3}{4}$ per cent as against 28 per cent in the case of the private companies. The passenger receipts of the state are still slightly the lower, though part of the difference can be put down to its appreciably higher proportion of third class traffic.

Saxony has had somewhat better fortune than the states just dealt with, for though the percentage earned on reputed capital was but 3.78 in 1908, for some few years preceding 4 and 5 per cent surpluses were the rule. Prussia, however, is the one example of marked financial success over a period of considerable length. This unusual achievement was favored by the fact that active state control was undertaken just about the time when the great economic advance of Germany was commencing. Financial prosperity was assured ahead. It is fair to inquire whether, under such conditions, the Prussian state railways have accomplished for the economic development of their country all that might reasonably have been expected from them.

Despite statistics showing the growth of the commerce and industry of Prussia, which prove nothing, as no one can tell what would have been the result with a different system of management, I am inclined to think that they have not done so. So far as my reasons for this opinion can be expressed in brief, they are as follows: Prussia is operating her railway system under peculiarly advantageous conditions—namely, compact territory, dense population, favorable physiographic conditions, unity of railway management arising from the fact of state operation, low labor cost, low taxation, a people temperamentally and by military training inclined to take severe restrictive control as a matter of course. For instance, Prussia has five times as many people per mile of line and twice as many miles of line per unit of area as the United States. The enormous physical obstacles to economical

operation offered by the Rocky Mountains are absent. The practical monopoly enjoyed obviates many expenses of organization and of competition for traffic. Taxes per mile of line are little more than half those of the United States. Railway labor-cost per individual averages about half that of this country. Add to these the high average intelligence of its people and the rapidity of economic progress, and all the elements of efficient and economical operation, making easy the combination of very low charges with high rates of profits, are present. Yet what has been accomplished? For one thing comes the reply, extraordinarily low passenger rates, rather less than one cent per passenger mile, in 1908, as against 1.9 cents in the United States. But there are several points to be noted in connection with this. In the first place, Prussia, with its denser population, affords to the railways a passenger density of four and a half times that of the United States, and such enormously greater density, in the case of traffic that handles itself, lowers the cost per mile very considerably. In the second place, the third, and especially the fourth class in Prussia, represent facilities which the average American traveler would not put up with for the small annual amount he would thereby save. In the third place, the cheapest accommodation that can be properly compared with that of American passenger trains, the second class, averages 1.6 cents per passenger mile, a charge which represents quite as much to the average German as 1.9 cents does to the average American. In the fourth place, though operating costs are low, there is ground for suspicion that Prussian fourth class rates are more helpful politically to the government than profitable to the railway. Passengers, however, bring in but 28 per cent or so of total operating income, while freight traffic produces about 65 per cent, a similar ratio to that of the United States. Moreover, of the two branches of the service, freight traffic is the one which calls for the exercise of most skill; it is also readily susceptible to reductions of cost. The Prussian Railway Department seems to have failed to realize its opportunities. From 1880-1908 freight transportation charges in Prussia decreased about 15 per cent; in the United States, during the same period, they decreased nearly 40 per cent. The average ton mile receipt of Prussian railways, in 1908, was 1.24 cents; in the United States .754 cents, nearly 40 per cent less, really about 60 to 65 per cent less if equivalent purchasing power be taken into account. The *Ausnahme* tariffs, covering wagon

loads of 22,000 pounds and over, and accounting for 21,144 million ton kilometres out of a total of 32,810 million, very largely coal, ores, lumber, stone, earth, raw materials and grain, worked out at an average receipt per ton mile of 90 cents, in spite of the depressing influence of political export rates, a figure very appreciably higher than the average for all classes of goods here. The normal tariffs for wagon loads, accounting for 9600 million ton kilometres, gave an average receipt of 1.5 cents per ton mile. These figures are only averages and easily liable to misinterpretation, but the differences indicated are so great as hardly to leave room for any doubt as to the superior economy of American freight transportation to its users. There is a much closer similarity in the general make-up of the tonnage than some writers have supposed. Nor can the difference in average haul have any greatly disturbing effect on the comparison, for the great bulk of the tonnage in both countries is low class carload traffic, loaded and unloaded by shippers and consignees. Terminal charges for handling this class of traffic are comparatively light, and therefore cannot be responsible for the difference of costs such as occurs in short and long distance hauls of freight that has to be loaded and unloaded by the railway. Then it has to be borne in mind, in connection with this carload freight, that increase in length of haul means increase in the number of division yards that have to be passed through, involving rehandling in the case of most trains; also that wages of enginemen and trainmen, cost of fuel and supplies, and cost of maintenance of rolling stock tend to keep pace, more or less exactly, with increase of haul. The density of freight traffic, it should be observed, is nearly the same in both countries.

Further, throughout the whole comparison, the different wage costs need to be borne in mind. In the United States, 60 per cent of total operating expenses is consumed by wages and salaries, and the average rate of pay of the American railway employee runs at least 100 per cent greater than that of Prussian employees, including all allowances and so forth. This means that, if American employees were paid on the same basis as Prussian, freight rates could be reduced to just half Prussian rates and passenger rates to the same level, while net income would actually be greater than it is now.

The contrast between the freight and passenger rates of Prussia is such as inevitably to create the impression that the former constitute more or less of a tax upon facilities, and this feeling

is emphasized when one bears in mind the severe restrictions, such as those of the demurrage and loading regulations, to which the freight traffic is subjected. It may be good political policy to maintain passenger fares at a low level, but, if this means that profits have to be bolstered up at the expense of freight charges, it is unfortunate. Since an infinitely smaller proportion of the income of the average individual is spent on railway passenger traffic than on freight transportation, low passenger fares are, in general, of much less economic importance to the community than low freight charges.

Like state managements in general, that of the Prussian railways seems to be inelastic. Some half dozen years ago, the Prussian operating ratio was about 62 per cent: it was 62.67 in 1905. In the three following years, it rose 12 points, reaching the unprecedented figure of 74.62. In France the increase was from 52 to 58, in England from 62 to 64: in the United States from 66.78 to 70. In all these countries the same economic influences were at work during the period, a general upward movement in the cost of railway labor and supplies, and, during the last year, the pressure of the financial panic which commenced abruptly in the United States towards the close of 1907. A similar relationship is revealed when the ratios of the state railway of France is compared with those of the five great private lines (the Western being excluded because of the embarrassment of its working by anticipations of purchase). The former increased its ratio from 72.2 in 1905 to 80.69 in 1908, while that of the latter lines increased from 50.2 to 54.8. I do not wish to make the mistake of laying undue emphasis upon figures which represent the results of the action of complex and varying combinations of forces, but such dissimilarities as do exist seem hardly capable of explaining away the criticism of state management involved in the comparison. One of the most eminent students of international railway policy, M. Colson, said but recently "*Les administrations d'État, généralement, (sont) moins habiles que les compagnies à serrer les prix de revient à découvrir et à réaliser toutes les économies possibles.*"

Yet, in some ways, the railway administration of Prussia has been inclined to push economy to the extreme. In 1906 an expenditure of \$50,000,000 on equipment was authorized, and much has been made of this action as an illustration of the advanced policy of enlightened state management. But, as a matter of fact,

the conditions of car service had become absolutely lamentable, and the government did not undertake this expenditure until it was actually unavoidable. The 1907 report of the Chamber of Commerce of Essen says "..... the increase of our roadway accommodations, and the provision of rolling stock, etc., has not taken place in a manner corresponding to the development and the necessities of traffic, and, further, no progress of general importance has been made in the matter of our goods traffic." Charges of this kind are common in the history of the Prussian state railways. Ten years ago, Professor Dr. Arthur Böhltingk, in his pamphlet "*Unsere Deutschen Eisenbahnen*", wrote "Although his Excellency Von Thielen has not once been able to provide sufficiently for the demands for rail transport, and although he has repeatedly declared that the railways had reached the limits of their capacity, he seems to have thought less than ever of making them equal to such demands by means of additions and improvements."

Short of an exhaustive analysis impracticable within the limits of this paper, sufficient evidence has been brought forward, perhaps, to indicate how little reliance can be placed upon the argument for nationalization which is based on the results of Prussian railway management. In spite of all its apparent success, I am convinced that the state government has failed to live up to its opportunities. With all the disadvantages and defects of the privately managed American railway system, and notwithstanding the restrictions placed upon its working by federal and state governments, it has contributed far more to national economic development than has the state system of railways in Prussia.

There are certain other features of state railway management, a brief statement of which must suffice, though their importance is considerable. There can be no question but that, where economic conditions render it at all practicable, state railways will endeavor to make profits. The history of Prussia indicates very clearly that, under such circumstances, there is a great probability of too intimate a relationship being established between the financial and railway departments of the state. This is likely to lead, as it has led in Prussia, to a subordination of the economic interests of the industry to the fiscal necessities of the treasury. Again, with the nationalization of the railway system, the experts of that branch of industry become government servants, and, as such, liable to less searching criticism than when, as the repre-

sentatives of private enterprise, the sword of government investigation and regulation was constantly suspended above their heads. Like individuals, government is not apt to criticise itself. The depressing effect of government management upon the initiative and self reliance of employees is an old charge, and I will do no more than quote from the report of the recent Board of Trade investigation of Italian railways. "There is one element in connection with the transfer from private working, and that is the change which has taken place in the management of the personnel. Numerous removals have been effected consequent on promotions being made in order of seniority, which is not in all cases compatible with merit. One hears traders who have had close associations with the officials, in the days of private ownership, deploring the disadvantages caused by the removal of local officials possessing intimate knowledge of the working, and their replacement by officials from probably quite a different part of the country owing to some claim of seniority. Again, in the staff themselves, there has been noticed, it is said, a change occasioned by the transfer from private to state ownership. As state officials, there does not seem to be quite the same amount of willingness to take responsibility; the strict letter of the rules and regulations is the boundary line over which there is no disposition to step."

So much for the influence of state management upon the railway. We may now ask what is the effect of the state railway upon general state administration. This question is worthy of a much more elaborate answer than I can possibly give at the present time, and I shall not attempt to do more than outline some of the leading considerations. First, then, the entry of the state into general or specific industrial competition with its own citizens is neither wise nor proper. Its natural position as the disinterested and unbiased dispenser of justice, revealer of frauds, and adjuster of inequities is prejudiced thereby. Confidence in its impartiality becomes weakened, capital hesitant, private initiative less keen, with corresponding retardation of the material growth of the community. Secondly, the duties necessarily imposed upon the executive of the modern state in connection with the fundamental functions of administration of justice, protection of the community from physical and moral violence, whether in social or strictly economic relations, and guardianship of its physical and mental health, constitute a heavy burden in themselves; and an efficient

discharge thereof is far from being attained in the most advanced countries. To superimpose upon these duties the responsibilities of the industrial entrepreneur is to diffuse the energies of the state through a still wider field, over which it is likely to exercise a still less satisfactory control. The capacity of government is not unlimited. Thirdly, in so far as the railways are productive of surpluses, to that extent the executive of the state is relieved from drawing upon the pockets of the taxpayers. It is admittedly difficult even in the most democratic states to keep the executive in responsive relationship to the legislature and to the public. The more dependent the executive is upon funds raised by taxation, particularly direct taxation, the less arbitrary can it become. The ultimate political well-being of the democracy rests upon the practical recognition of this canon of government. Fourthly, fiscal reliance upon railway earnings is apt to prove embarrassing to state finances, at recurring periods, from shrinkage of receipts—a difficulty that is accentuated by the apparent inability of government railways to adjust themselves readily to economic vicissitudes.

From the point of view either of the influence of the state upon the efficient management of the railway system, or of the influence of the responsibility of railway management upon the efficiency of state administration, there is reason to dispute the advantage so loudly claimed for nationalization. The real meaning of railway nationalization is the substitution of uncontrolled state management for controlled private management, and the change is unfavorable to economic progress and efficient government.

THE PLACE OF THE CANAL IN A NATIONAL SYSTEM OF TRANSPORTATION

W. F. GEPHART

It is often desirable after the discussion on a question has extended over a considerable period of years, with the inevitable result that many extraneous elements have been brought into it, to return to a review of the original causes of the discussion. Those who have been interested in the solution of the present question have had the very great difficulty of attempting to value properly the new factors introduced into the problem, as a result of the progressive changes in the methods of transportation and in the kinds and quantities of goods to be carried. The transportation problem, as it originally presented itself in the United States, had two most striking natural characteristics. First, the country was so vast that many miles of artificial transportation means were demanded. In no previous time was a people forced to think of transportation on such a vast plan and in such large units. Second, the commodities to be transported were to be made up very largely of raw materials. Nature had supplied her resources in such large quantities and in such diversity that the extractive industries promised for many years to be the most remunerative. But these products must necessarily move long distances, which on account of their low value and large bulk meant that the value density on our transportation routes would be very low. A failure to keep these two facts in mind has often led us to make assumptions and false comparisons between the transportation problem in the United States and in Europe. We have taken as a basis of comparison a European country and the United States, when a more proper unit for comparison would be a single state or group of states in the United States. Even then the differences in the natural resources, the character of the industrial life, the social and political ideas of the people, and the length of time that the regions have been settled make a comparison frequently futile. Just as there were two striking natural characteristics in our transportation problem, so too there were two important human characteristics in it. First, over this vast area was spread a vigorous but sparse population, eager to begin the exploitation of the great natural resources.

Each local community desired means of transportation to reach for distant markets and thus receive the large profits which were promised. The pressing demand for routes and the intense rivalry among the scattered settlements were therefore the most important causes for the extravagant expenditures which were made to secure transportation facilities, and also for the vacillation in favoring the different methods of transportation. Second, the amount of artificial capital was small, as in all new countries, but with this difference, that the amount of capital which was immediately needed to construct transportation routes was enormous. Transportation routes were a prerequisite to the whole industrial development, for the chief natural resources were inland and not on the coast line.

As a result of the above conditions, the people in their anxiety to reach markets were led to favor enthusiastically any means of transportation which seemed to promise immediate access to them. The exigencies of the moment were too great to think out any well developed plan or system of transportation. The most important problem was to secure local transportation routes, since nature had supplied great trunk lines in the form of long navigable rivers, the Mississippi, the Ohio, the Hudson, the Great Lakes, and the deep indentations of the coast line. This demand for transportation routes to connect local communities with the main natural routes led to enthusiastic support of turnpikes, canals, and railways. In many cases expenditures were made from which little or nothing was realized. In other cases routes were constructed which the industrial development did not then or prospectively justify. Ohio, for example, constructed three canals from Lake Erie to the Ohio River, not because the industrial conditions demanded three canals, but because there were in Ohio at that time three chief centers of population and sufficient votes to enact a canal bill could not be secured without providing a canal for each section of the state. The success of the Erie Canal was conclusive evidence to the people of many other localities in which a canal could be constructed that they too should build a canal. There is a striking similarity in the unreasoned enthusiasm displayed by the supporters of the movements of the two periods.

Local associations are again formed to further the construction of canals, and to improve internal waterways, but with this difference, that the organizations now include the population of a greater area and therefore give a greater momentum to the move-

ment. The members of these later day associations are as impatient with the inquisitive person who asks for the details of their plans as were the members of the earlier associations, and as eager to disprove with mere statements and "padded" statistics the findings of engineers as were the earlier enthusiasts.

The lack of capital in this early period led to large grants of land and powers to those private corporations which offered to supply local transportation routes in the form of turnpikes and railways. When these private corporations later realized that they would be compelled to depend very largely upon the private investor, and not the people, for the capital to complete and operate the roads, their efforts were directed to so conducting the business of transportation that a return to the private investor on his capital would be secured. Thus the bond between the people and those in charge of the transportation business was broken. It was no longer viewed by the enterprisers as a public business but as a private business. However, the people had not only as states but as individuals given large aid to these transportation enterprises, and for over a half century the contest between the people and the railroads was to continue in order to compel the latter to admit the public character of the business.

The railroad had from one point of view appeared at a most inopportune time. The canals in the United States had become by 1840 going concerns; that is, a great number of them had been completed and many were proving a success. Population was increasing very rapidly both by immigration and the natural increase. Many of the settled regions could not have canals and were forced to depend upon the highway. The demand for transportation routes was absolutely and relatively increasing. Many of the people in the long-settled regions were paying for the canals in the form of state taxes, the proceeds of which other localities were enjoying. The rapid industrial development of many sections which had canals soon made them inadequate means of transportation. Transportation was supplied on the canals only a few months in the year and then with no great certainty either as to the time of shipment or the quantity of goods which might be shipped. The business of transportation on the canals was never well organized, for the ideal of competition was held by the people during the canal period and the states were careful to preserve as large a degree of competition as possible. Had the same degree of systematization been applied to the transporta-

tion business on the canals as came to be applied to the railway business, or even to the transportation business on the early turnpikes, the history of the canals might have been different.

It is not, therefore, strange that the people were disposed to favor the railway as a means of solving their transportation difficulties. It answered most perfectly the demand for local transportation routes. It could be built anywhere and could be operated twelve months in the year. It could be constructed in 1 mile, 10 mile, or 1000 mile units, and appeared to have no limit as to the amount of goods which could move over it. It could supply not only new trunk lines but, what was of more importance, it could be built from each local community to the great natural trunk lines, the rivers, the lakes, and the ocean. It was the most available and therefore seemed the most desirable means of transportation. A few years' experience in constructing railways was sufficient to prove that the original cost of their construction was grossly underestimated. By the time that these facts became generally recognized, it was also evident that if the natural and artificial waterways were to perform their highest possible services as transportation agencies, they must be greatly improved. However, by this time, say 1865, the state governments, the only source from which funds were to be secured for the improvement of the waterways, had incurred heavy financial obligations as a result of the Civil War. Then too the states had not in many cases yet paid for the original cost of constructing the canals; scandals in expenditures for internal improvements had been so numerous, and the objections from the people not served by them so continued, that many of the states of the Middle West, in forming their new constitutions about 1850, fixed definite limits upon the power of the state to make expenditures for internal improvements.

The people were therefore forced, as they thought, to choose between railways and canals. The railways were not only available for each section but the capital for their immediate construction would be supplied by private individuals. No large number of people demanded the improvement of the canals, the management of which had in many cases proven a troublesome question. When the Ohio legislature leased the three canals of the state, it congratulated itself that "the eternal question of the canals was for a time solved." The choice which the people made was doubtless a wise one so far as the immediate future was concerned. Had we chosen to improve our waterways and contented ourselves with

fewer railways, our industrial development would probably have been more slow, but for that reason probably a more efficient use of our resources would have been made. However, the American people have never been suited, either by their mental constitution or physical vigor, to be strongly influenced by the arguments for the conservation of their natural resources. Had nature been less bountiful, we might have been less prodigal. The history of the progressive decay of our inland waterways is too well known to need comment. They ceased to be used, but least of all because the railways discriminated against them in rates. No such inducement was needed to persuade traffic to leave the waterways.

We are now beginning again where we began in 1800. The old problem of deficient transportation routes still confronts us. But as compared with 1800 there are these very great differences in the problem. In the early period railways were supplementary, now canals are to be supplementary. Canals in the early period were local transportation routes, now they are to be parts of through lines, for we still have the great natural trunk lines, the rivers, the lakes, and the ocean. In the early period the contest for transportation routes was between the people of localities, one section of the state contesting with another section of the same state for a canal. Now the conflict is between the people of large areas, such as the people of the Ohio Valley states contesting with those of the Missouri Valley for the improvement of their respective rivers first. There is again this difference in the two contests. In the earlier period a particular improvement could be carried out in one section without reference to what was done in a distant section. Now each is to be a part of a connected and improved whole, because we are providing for systems of waterway transportation, whereas we had in the early period single and independent parts. For example, it is not desirable to have a modern canal from the Great Lakes to the Ohio River until we have an improved Ohio River, nor much less desirable to have an improved Ohio River until we have an improved Mississippi River. There remains however general similarity in the character of the goods to be moved on our improved waterways. They may be conveniently classed under the two heads: (a) such bulky low value commodities as ore, coal, and lumber; (b) such manufactured or semi-manufactured goods as lend themselves to distribution by rail from large distributing centers, such for example as the glass products of the Pittsburg district and the clay products of the Ohio Valley.

If we inquire as to the direction of what we may call the streams of traffic of these classes of commodities, we may in a general way determine the part that the canals will play in the movement of these goods. In the first place, it should be stated that commodities of this description are of decreasing importance in our foreign trade, since more and more manufactured goods make up the bulk of our domestic exports. In the second place, those regions in the modern industrial nations where the extractive industries are practiced have sparse population and the manufacturing regions have a numerous population. It therefore follows from these two facts that the streams of this traffic are flowing in this country to the great centers of population, to be there transformed into manufactured wares. We may consider first the streams of coal traffic. These move in general in a north, northwest and northeast direction. The coal which reaches Norfolk and other near-by tide-water points over other than water routes can be carried by ocean to the industrial center about New York and the New England industrial center, but the artificial waterways can be of little service to this stream. The north and northwest streams of coal traffic already use the waterway to a great extent, that is, the Great Lakes; and, if a canal were constructed from the east end of Lake Erie to the Ohio River, doubtless this route would be used for the movement of this coal. Again if the Ohio River is improved and a canal is constructed from the Mississippi River to Lake Michigan, this route will be used for the movement of coal from the upper Ohio region and the Illinois field to points along the Ohio and Mississippi rivers and also to the industrial center about Chicago. The southern coal stream does not as yet promise to be large. In discussing the iron ore streams only one is important for our purpose, namely, the southeast stream. This we find is already supplied for the most part with water transportation by the Great Lakes to the Chicago-Gary district and to the Cleveland-Ashtabula district. However a canal, if again built in the extreme eastern part of Ohio, would be able to carry the ore to the Pittsburg district. The streams of traffic of farm products, so far as they are pronounced, are to the east in the North and to the south or east in the South. In the first case the Great Lakes already supply a water route which is not extensively used, and in the South the rivers are not much less used. Many of the farm products are not suitable for water transportation, such for example as food animals, dairy products,

and flour; but, most important of all, the streams of traffic of food products are becoming so numerous and so much smaller as to the quantity of traffic over each stream that water routes are not found in the proper places. The streams of traffic made up of semi-manufactured goods, such as oil, lumber, and clay products, are so numerous as to defy analysis; but in some cases, such as the clay products of Ohio, the waterway will doubtless be of importance. The streams of traffic of manufactured and semi-manufactured goods are becoming so numerous and consequently so small as population equilibrium comes about that waterways can serve less well as means of transporting these goods, notwithstanding that their bulk and suitability for distribution from centers otherwise make them a proper class of goods for water transport. Some adherents of water transportation seem sometimes to forget two elementary facts; first, that waterways are limited to those regions where there is a natural water supply; second, that while certain commodities can be moved most cheaply by water, the water route does not always lead to a market.

The improved waterway is to be a through transportation route because the means of local transportation are either now supplied or promised by more satisfactory and efficient methods. The steam railway has in those cases where there is a relatively high value density of traffic solved the problem. In other cases the adaptable interurban, with electric, gasoline, or other motive force, has supplied the need. Except where population density is great, there will probably not be a great extension of the railway, whatever the motive power be. The greatest reliance for local transportation routes will be placed in the improved highway with the vehicle moved by mechanical power. Just as we realized the greater adaptability and suitability of the railway seventy years ago, so we are coming to realize the potentialities of the improved highway and the motor vehicle as a means of transporting traffic over local routes. They are to serve equally well for passenger business with the single vehicle, or for freight business with a train of vehicles, moved by a single unit of power. The cost of construction is relatively low and the benefits from the establishment of the route immediately and generally are secured by the community which constructs it. The large operating company has not yet appeared in this country, but no such unification of the operating forces will be demanded as in the case of rail and water trans-

portation since the motive force is as equally useable on the farm as on the road.

We shall not favor the construction of internal waterways so much because they will relieve the congestion of traffic, for the congestion of which there is now complaint is not so much on the line as at the end of the line. The water fronts in our industrial centers are now well occupied and the existence of an inland system of waterways will not add greatly to our terminal facilities. Nor shall we delude ourselves into believing that a justification for improved waterways will be that they will be a means of controlling rates on railways. We have already been guilty of enough errors of the forum in our thinking on the railway rate problem without assuming that absolute cheapness is the determinant factor in the movement of traffic.

The canal is to be a part of through transportation routes, and the carriage of goods between local points will be insignificant. With the improved river it is to be a route over which the surplus traffic of a certain character from the railways will move.

Since these canals are to be a part of a system of transportation, the coördination of the parts of the system will demand careful thought. Too careful investigation of the inland waterway question in the relation of its parts to each other, and in its broader relation to railways and improved highways, can not be made. Past experience should have taught us the folly of placing into operation imperfectly thought out plans. Yet our past history of internal improvements and our political system with its opportunity of determining appropriations on the basis of the degree of pressure from local constituencies give no assurance that efficient expenditures will be made. The enthusiastic supporter of canals is as certain in 1910 as his predecessor was in 1820 that his proposal should be immediately carried out. The enormous expenditure demanded is not a question to be decided by the comparatively few residing or having property interests along the line of the proposed expenditure.

Already the vision of ship canals in many sections, which many of the friends of internal waterways had seen, has faded away after an investigation of their possibility and advisability has been made. It is probable that both on our improved rivers and canals the towed barge will be the vehicle chosen to transport the goods. A unit of power in a towing system is more efficient than in single

self-propelled boats for the character of the traffic which will move over these waterways.

Again, even assuming that a ship canal could be constructed in some regions, the water stage in the chief part of the route—the river—would not make possible a continuation of the journey by the larger boat. A large cost for transferring the load would be incurred which neither the character of the load makes easy nor its destination makes desirable. If however there is a combination of the parts of the route, no transfer will be necessary, and a single tug boat could move a train of barges uninterruptedly long distances, say from Cleveland to New Orleans. This will mean not only a saving in cost of conducting the business but also a lower cost of construction for the less deep canal. Doubtless we shall not rush into the work of constructing canals, but will further divorce the internal waterway question from politics and leave the decision of the routes to such impartial technical experts as will know what routes are possible, and to such industrial experts as will know what routes are practicable. That is to say, the two questions which need answers are: (1) can a canal be built and if so how deep should it be? (2) is there any traffic to move over the proposed canal? We shall not be deterred from entering into the project on account of the great cost involved for we have already had a too expensive lesson in building waterways for the immediate future.

CANALS AND RAILWAYS—DISCUSSION

W. M. ACWORTH: I wish to express my agreement in the main with Professor Dewsnup. Let me add that a comparison between Prussia and France shows that, under conditions certainly on the whole less favorable, the private railways of France operated at a ratio about 10 per cent lower than the state railways of Prussia. This seems to show greater efficiency and economy. In Texas the public got an equally good service at much lower rates than was given by fairly comparative state railways of Australia, in spite of the fact that in Australia capital would be raised cheaply on the credit of the county, while in Texas the state authorities had certainly not encouraged by their attitude the investment of private capital. Everything in England is making for railway nationalization as soon as political conditions will allow the government time to take up the subject. I believe the railway employees, the shareholders, and the mass of the voters are in favor. The professional and business classes are no doubt intellectually opposed, but they are out of sympathy with the present railway management, perhaps owing to what Professor Dewsnup called its "undiplomatic and unconciliatory attitude", and they will not be active in opposition; nor, even if they were, would they have the political weight necessary for success.

As to the papers on waterway policy I am not competent to discuss the administrative and executive points dealt with. I, however, regret that the more purely economic question, whether under any, and if so what, condition an artificial waterway can give as good and cheap a service to the public as a railroad, has not been raised. The advocates of a forward waterway policy are very chary of facing the crucial point of total cost (capital and maintenance cost charged on the public plus operating cost, which alone the freighter pays). The French official figures show that this total cost per ton kilometre is higher on the French waterways than on the French railways. Now, I believe that the railway could always undersell the canal, that in other words the railway is always the more economic transport machine from the public standpoint, though of course individual freighters by water might gain by throwing half of their real transportation costs on to the shoulders of the general taxpayer. Further, question the justice of taxing, for the benefit of the particular localities which alone could benefit by canals, parts of the country where physical

conditions make it impossible for them ever to get canals of their own.

Lastly, referring to Professor Dewsnap's statements that "traffic development is today conditioned even more by terminal than by line facilities, I should say that adequate terminal facilities are for a railroad expensive, but for a canal impossible. For instance in a great modern manufacturing plant, with its scores of miles of railway sidings through every yard and into every shop, it would be absolutely impossible to carry canals adapted for 1000 ton vessels through the yards and into the shops in a similar manner.

JOHN H. GRAY: Professor Dewsnap has given us an excellent paper. However it is not to its general excellence, its strong logic, and its systematic arrangement that I wish to call your special attention. The excellence of the paper, in the particulars named, should not cause us to overlook what seem to me serious defects in the premises on which the whole argument rests. The discussion reminds me of that very excellent book on *Municipal Trade* by Major Leonard Darwin. The logic in each case is impregnable, and the facts carefully selected, and beautifully marshalled.

Does Dr. Dewsnap accept the doctrine of the universality and beneficence of competition? If not, does he assume, what apparently is the only alternative, namely, effective regulation in private hands, or public ownership and management? If we are not to have public ownership, does his argument assume that we actually have effective control? Does he not, in fact, compare the defects of public ownership with an ideal condition of private ownership? Not less than five or six times in his paper he insinuates, without saying so directly, that the restrictions on private ownership in Germany and England are excessive. This is enough to commit him, all unconsciously it is true, to the theory of unregulated private monopoly, a doctrine no longer tenable. So when he comes to a criticism of the methods of accounting of public enterprises, his comparisons are always based on the assumption that the private enterprises have ideal systems of accounting. The facts do not seem to warrant such an assumption. It would doubtless be possible to match every instance of loose bookkeeping ascribed to public enterprises by an equally important and glaring defect in the accounting systems of private

enterprises. Furthermore, the fact should not be overlooked that the agitation for public ownership has been a chief means of bringing about such improvements as have been made in the accounting systems of private municipal monopolies. Again the argument that the state is so weak that new functions cannot safely be entrusted to it seems to me to rest on a false assumption; namely, that the state, with the increased complexity of our modern civilization, can perform effectively the functions which virtually all admit are properly state functions, unless the state itself be greatly strengthened. If political and economic history (with the rise and fall of nations) teaches any lesson clearly, it is this, that, no nation can long survive and maintain its sovereignty when any of its subjects, natural or artificial, are, in fact, more powerful than the sovereignty itself. But, Dr. Dewsnup's assumption, that the state, in its present weak and emasculated form, can remain sovereign over a magnitude of great and federated monopolies, seems to me fallacious. It is plain to me that the state must be greatly strengthened to carry the burdens already and necessarily placed upon it. I admit his logic, and accept his facts, but cannot agree with his conclusions, because I doubt the soundness of virtually all of his more important premises.

H. G. MOULTON: I have been much interested in what Mr. Acworth has said in regard to the need of making a comparative study of the cost of transportation by water and by rail. Until we have demonstrated the economic advantages of waterways, discussion of methods to be adopted in their development is futile.

Some few attempts have been made in the United States to show the economies of water transportation, but in no case has a scientific comparison with costs by railway been made. I have seen statements to the effect that the cost of shipping over the enlarged Erie Canal will be only about one seventh the average cost of railroad shipments in this country. But such computations always leave out of consideration the state-levied taxes which are to support the canal. A donation of \$101,000,000 is to be made to the shippers by the state, and neither the interest on this amount nor the outlays for maintenance or operation of the canal need be covered by the rates charged on the canal. A comparison of such rates with those charged on self-supporting railways is manifestly unfair, yet strange as it may seem even some economists have been guilty of it.

It is my good fortune, however, to be able to present at this time some comparative statistics in line with the suggestion made by Mr. Acworth. As Professor Johnson has told us, Prussia and the city of Frankfort have together expended, or will have expended by the end of this year, upon the canalization of the Main River and the development of harbor facilities at Frankfort, approximately \$23,000,000. This amounts to about \$1,000,000 a mile for the twenty-three miles of river between the mouth of the Main and the city of Frankfort. The same amount of money at the average rate of railway construction in Prussia would build nine or ten railways between the same points. As a matter of fact all the traffic on the river could easily be handled by a single railway. Were the \$23,000,000 given to a railway, it could move this traffic for nothing and still pay handsome dividends.

Two German writers, Rathenau and Cauer of Berlin, have computed that a canal between the Rhine River and Berlin adequate for barges of 600 tons' capacity would cost twice as much as a double track freight railway, and that at the same time its capacity would be only half as great.

The well-known Dortmund-Ems Canal is heavily subsidized. In the year 1905 the deficit, which was paid out of the public treasury, amounted to about fifty-eight cents a ton for all the traffic that traveled on the canal. To this is to be added the actual freight charges made by the barge companies. When thus computed the total cost of transport on this famous waterway is found to be over twice that for similar kinds of freight on German railways.

The deficit on all the waterways of Germany, including the great rivers the Rhine and the Elbe, amounts to over \$3000 per mile annually. At the same time the annual profit on the Prussian railways amounts to more than \$7000 per mile. Under such conditions quotations of rates are obviously not to be accepted as proof of the greater economies of water transportation.

It may be asked, in the light of the foregoing facts, why it is that Germany should persist in the policy of developing her waterways. In preparation for the International Railway Congress held in Berne, Switzerland, in July, 1910, a series of questions was sent out to the railway representatives of the various countries. In reply to the question whether it were possible to develop the railways commensurately with the needs of expanding

commerce, all answered affirmatively except the Prussian representatives, who stated that they regretted that they must refuse to answer that particular question. Upon being asked at the conference whether it were true, as had been officially stated in Germany, that the railways of Westphalia had reached the very limit of development, they replied guardedly that their opinion on the point had never been sought by the German government. What is back of the situation? I have been informed by the eminent French authority on transportation, M. Colson, that Kaiser William is directly responsible for the German waterway policy. Believing that the future of the Fatherland is dependent upon the development of Germany's sea power, the Kaiser also believes that inland water transportation is somehow or other indispensable to the development of extensive ocean commerce. That there is no necessary connection between the two matters not to a king who receives his inspiration from on high. Now, in 1899 when the canal bills were under consideration, the Emperor dismissed twenty officials of high standing because they voted against the waterway program. Twenty other men, favorable to water transportation, were appointed in their places, and the bills subsequently became law.

In France the deficit on the waterways in 1905 amounted to about 60 cents a ton for all the freight handled. When it is considered that practically all of such traffic is low class freight, and that it is in large part local, the enormous cost is at once evident.

The importance of adequate terminal and transshipping facilities has been rightly emphasized by both Professor Johnson and Major Harts. The latter has spoken, also, of the great cost involved in the transshipping of goods in comparison with the cost of haulage. I would raise the question here whether the cost of transshipping may not in fact be so heavy as to be in most cases altogether prohibitive. France has expended millions of dollars upon the development of transshipping facilities, and belt lines of railways have been constructed at the important waterway terminals. Yet transshipments of goods in France are very rare, about 99 per cent of the waterway traffic of the country being strictly riparian. In Germany a large amount of freight is indeed transshipped, but it is accomplished only by artificial means. The rates for transshipments are fixed by the government considerably below the actual cost of the service, and the loss is

made up out of general taxation. In the absence of such a practice German water traffic, too, would be mainly riparian.

There is one other consideration which I should like briefly to touch upon. In Europe the waterways have been developed and fostered for many years, and as a result industries have been built up with reference to water transportation facilities. Under such conditions the giving up of water transportation, and the consequent readjustments of industrial conditions would involve heavy losses. This consideration is of no little importance in determining the policy of continuing the development of European waterways. But in the United States conditions are completely reversed. Our industrial development in recent years has taken place with scarcely any regard to water transportation. Our industries have almost wholly been built up around the railways, and the readjustments that would be necessary in order to make use of waterways would involve enormous losses. Consider for a moment what it would probably cost to reconstruct the railway terminal system of Chicago in a way that would place it in harmonious relationship with a Lakes-to-Gulf deep waterway.

Until it can be shown that water transportation is, all things considered, cheaper than that by rail; until it can be shown that the cost of transshipment would not be prohibitive; until it can be shown that the losses incident to the necessary readjustments in industry would be more than compensated by eventual savings, the economic advisability of waterway development cannot be regarded as having been demonstrated. It is, moreover, useless to spend our time in discussing how waterways should be financed and the role that should be played by the federal, state, and local governments respectively until we have decided the prior question of feasibility.

EMORY R. JOHNSON: The importance of studying the ton-mile costs of transportation upon canals was emphasized by Mr. Acworth, who regretted that my paper did not deal with that question. In reply I wish to state that I recognize the importance of ascertaining the cost of transportation by a proposed waterway and of ascertaining that cost, as closely as may be, in advance of the construction of a waterway. The State of New York made such an investigation before embarking upon the work of enlarging the Erie Canal. Just at present, I happen to be chairman of a committee created by the commercial interests of Philadelphia,

Wilmington, and Trenton, to investigate the traffic aspects of a proposed canal connecting the Delaware River and New York Bay. Thus it was not because of lack of interest on my part in the question of the cost of transportation by waterways that caused me to consider only administrative and fiscal problems, but because it seemed to me more important that the latter problems should be discussed at the present time. A traffic study should precede the authorization of any particular work.

THE OCCUPATIONAL DISTRIBUTION OF THE LABOR SUPPLY

T. N. CARVER

Instead of reading a paper I shall submit a series of propositions for discussion. These propositions have been printed and are found in the leaflet which is distributed through the room. They are as follows:

I.

A. One large factor in the bad distribution of wealth is the bad distribution of men among the different occupations, too many crowding into the unskilled and too few going into the skilled and the learned occupations.

B. Children born of parents who have not been able to rise out of the poorly paid occupations are themselves less likely, *on the average*, to rise out of these occupations than are the children of parents who have risen into the more highly skilled and better paid occupations.

C. Therefore it would help matters if the birth rate could be reduced among those who remain in the overcrowded, underpaid, and unskilled occupations.

II.

So long as immigrants enter the ranks, particularly the lower ranks, of labor¹ in larger proportions, and the ranks of the business and professional classes in smaller proportions than the native born, continuous immigration will produce the following results:

A. As to Distribution. It will keep competition more intense among laborers, particularly in the lower ranks, and less intense among business and professional men, than it otherwise would be. This will tend to increase the incomes of the employing classes, and to depress wages, particularly the wages of the lower grades of labor.

B. As to Production. It will give a relatively low marginal productivity to a typical immigrant, particularly in the lower

¹ Cf. Commons, *Races and Immigrants in America*. Table between pages 108 and 109.

grades of labor, and make him a relatively unimportant factor in the production of wealth—a few more or a few less will make relatively little difference in the total production of national wealth.²

C. As to Organization of Industry. Because of their low individual productivity, they can only be economically employed at low wages *and in large gangs*.³

D. As to Agriculture. If immigrants go in large numbers into agriculture, it will lead to one or the other of the following results, *in all probability the latter*:

1. The continuous *morcellement* or subdivision of farms, resulting in an inefficient and wasteful application of labor, and smaller crops per man, though probably larger crops per acre; or

2. The development of a class of landed proprietors on the one hand, and a landless agricultural proletariat on the other.⁴

²A disproportionately large supply of one grade of labor as compared with the supply of other grades of labor with which it has to be combined in production, tends to make each laborer in that grade an unimportant factor in production, so that one laborer more in that grade adds very little to, and one laborer less subtracts very little from, the total quantity which can be produced. By way of illustration, charcoal, sulphur, and saltpetre have to be mixed in the production of gun powder. The proportions may vary within rather narrow limits. Suppose that there is more charcoal than can be satisfactorily combined with the existing supply of sulphur and saltpetre. No matter how much demand for gunpowder there may be, no more can be made than the scarcer factors will permit. However excellent the charcoal may be, it cannot all be used advantageously. Under such conditions, one pound of charcoal more or less will have very little influence on the total production of gunpowder.

The different factors of production, including the various kinds of human ability, have to be combined in production. The proportions may vary within somewhat wider limits than can the ingredients in the manufacture of gunpowder, but the principle is the same.

³Just as scarce labor and abundant land lead inevitably to extensive farming where a small quantity of the scarce factor, labor, is combined with a large quantity of the abundant factor, land, so a relatively small supply of managing ability and a relatively large supply of the kind of labor which must be superintended leads inevitably to a combination of a small quantity of the scarce form with a large quantity of the abundant form, *i. e.*, one superintendent, foreman, or boss, over a large gang. Again, just as in the former case there will be high wages and low rent, so in the latter case there will be high salaries and low wages.

⁴So long as labor is scarce and dear, and land abundant and cheap, the way is easy from the position of farm laborer to that of farm owner, and many there be that find it; but when labor becomes abundant and cheap, and land scarce and dear, the way becomes hard, and few there will be who will find it.

III.

If there are large numbers of immigrants belonging to races or nationalities which do not fuse with the rest of the population by free intermarriage, or with which the rest of the population will not intermarry freely, there will result one of the three following conditions:

1. Geographical separation of races; or
2. Social separation of races, *i e.*, in the formation of classes or castes; one race or the other becoming subordinate; or
3. Continual race antagonism, frequently breaking out into race war.

THE EARLY PROPAGANDIST MOVEMENT IN ENGLISH POPULATION THEORY

JAMES A. FIELD

Notoriously, the birth-rate in countries of our civilization has for years been falling. Notoriously, too, a chief factor in this decline of the birth-rate has been the spread of so-called neo-Malthusian practices which render the fertility of marriage almost completely subject to voluntary control. The wide extent of these practices is not always recognized, and can be only vaguely known; but in proportion to the adequacy of our information we must acknowledge that a sudden substitution of rational calculation for instinct as the influence determining human increase constituted, for good or for ill, one of the profoundest social changes of the last century. Despite its importance, the history of the movement has remained obscure.

In countries where the English language is read and spoken the general diffusion of neo-Malthusian ideas is commonly traced back to the noisy publicity of the prosecutions which were carried on in England in the years from 1876 to 1878, culminating in the trials of Charles Bradlaugh and Mrs. Besant, and of Edward Truelove, charged with offending against public morals by offering for sale Dr. Knowlton's book, "The Fruits of Philosophy." But this book and others of similar purport, which like it were effectually advertised by the scandal of the trial, had been first published decades before the ill-judged attempt to suppress them. The checks to population which they advocated were not newly devised. It is abundantly clear that the precursors of the neo-Malthusian movement established an active propaganda in England in the decade of the 1820's, when, after the shock of the industrial revolution, the shattering idealism of the Revolution in France, and the burden of the French war, the British populace was straining in so many ways to fit itself to its new economic situation.

The present paper is an attempt to give an account of the beginnings of such propagandism in England. It is only a fragment: a tentative study of one episode in the development of population theory since Malthus. The source from which it has been chiefly derived is the unique and invaluable collection of

manuscript records, newspaper clippings, and fugitive printed matter gathered by Francis Place. This material, though unfortunately somewhat scattered, has found its way partly to the library of Professor Seligman, but principally to the British Museum, where it fills some two hundred and fifty bulky volumes, and comprises references to nearly every social problem which was stirring in the early nineteenth century. Buried in the mass, almost unknown, are documents revealing contemporary efforts to promote the use of artificial means for the restriction of births. Half revealing, one might better say, for apprehension of public censure has from the first operated to keep the record obscure. The narrative based upon such documents as are at hand will doubtless require amplification, and perhaps considerable correction, by the results of further study; but provisional as it is, I venture to lay it before you in the hope that it may shed new light on the beginnings of our present-day problem of the declining birth-rate.

When Malthus published, in 1803, the second edition of his "Essay", he made a most important departure from his former classification of the checks by introducing, expressly and with new emphasis, the concept of moral restraint. The first "Essay" had depicted the menace of population for purposes of destructive argument: the second took the form of a treatise on population by and for itself; and so, in revising the work, Malthus was moved to indicate not only the difficulties of the situation which he saw, but also his hope of a way out. This hope, such as it was, lay in moral restraint. By moral restraint Malthus meant, as he expressly stated in the last edition of the "Essay" published during his lifetime, "a restraint from marriage, from prudential motives, with a conduct strictly moral during the period of restraint." From this meaning, he insisted, he had never intentionally deviated.¹

The idea of restraint *in* the marriage relation was in fact foreign to Malthus' doctrine. He warmly repudiated the allegation that he advocated anything of the sort. The usage which has connected his name with neo-Malthusianism and its devices is therefore but an example of the irony which the course of scientific thinking has in store for those whose influence proves too far-reaching to remain within the limits of their own mental

¹ Sixth Edition, London, 1826, Vol. i, p. 15, note.

horizons. Malthus' spirit of reform stopped at the threshold of marriage. He was radical enough in interposing difficulties between the desire to marry and actual marriage; but once persons were married he left them to the undisturbed guidance of the ethical sanctions which religion and custom had provided. However inharmonious and illogical some elements of the traditional idea of the marriage relation might have seemed if tested by his criterion of utility, he did not call them into question. The advocates of the radical check see in this a failure to carry his principle to its logical and serviceable conclusion. This, in the words of Meyerhof, was the mythological cuckoo's egg in the nest of exact science.² But it may well be that Malthus was wiser than the unconsidering fanatics among the prophets of population reform who fling their upstart logic in the face of established social customs.

From other quarters the proposal of more direct checks on population was not long in forthcoming. Guardedly it found a way into the *Encyclopedia Britannica Supplement*, in James Mill's article "Colony", published in 1818. There Mill wrote, in an often-cited passage concerning "the best means of checking the progress of population":

And yet, if the superstitions of the nursery were discarded, and the principle of utility kept steadily in view, a solution might not be very difficult to be found; and the means of drying up one of the most copious sources of human evil . . . might be seen to be neither doubtful nor difficult to be applied.

Three years later, in the first edition of his "Elements of Political Economy", Mill, treating of population, speaks of

. . . prudence; by which, either marriages are sparingly contracted, or care is taken that children, beyond a certain number, shall not be the fruit.³

And in the same work he concludes:

The grand practical problem, therefore, is, to find the means of limiting the number of births.⁴

The *Edinburgh Review* ventured more than a hint in the same direction.⁵ Thompson, in 1824,⁶ advocated some sort of preventive artifice. But a more outspoken declaration had in the meantime

² "Hans Ferdy", *Sittliche Selbstbeschränkung*, p. 10.

³ Page 34.

⁴ Page 51.

⁵ In a review of Cobbett's *Cottage Economy* [by Jeffrey], vol. xxxviii, p. 125.

⁶ *An Inquiry into the Distribution of Wealth*, pp. 547-50.

come from Francis Place. In his "Illustrations and Proofs of the Principle of Population", published in 1822, reviewing various ways in which the evils of excessive population might be mitigated, he delivers this noteworthy pronouncement:

If, above all, it were once clearly understood, that it was not disreputable for married persons to avail themselves of such precautionary means as would, without being injurious to health, or destructive of female delicacy, prevent conception, a sufficient check might at once be given to the increase of population beyond the means of subsistence; vice and misery, to a prodigious extent, might be removed from society, and the object of Mr. Malthus, Mr. Godwin, and of every philanthropic person, be promoted, by the increase of comfort, of intelligence, and of moral conduct, in the mass of the population.

And Place adds prophetically:

The course recommended will, I am fully persuaded, at some period be pursued by the people, even if left to themselves.⁷

But the people were not left to themselves. By the following year an active propaganda had already begun.

One evening in July, 1823, a mysterious parcel was handed to Mr. Taylor, editor of the *Manchester Guardian*, with a note asking that he be so kind as to see that it was delivered to Mrs. Mary Fildes—known for her interest in the welfare of the working classes. With this request Mr. Taylor complied. When Mrs. Fildes opened the package she found a number of copies of what was subsequently called "the diabolical handbill": a small leaflet, unobtrusively and almost elegantly printed, addressed "To the Married of Both Sexes", setting forth the economic burden of an excessively large family, and describing with frank simplicity means of preventing conception. With the leaflets was an anonymous note which ran as follows:

London July 8th 1823

To Mrs. Fildes

Madam

The Bills enclosed with this note are sent to you, as to an experienced, sensible, discreet woman, having much influence in her neighbourhood, to one, who has shewn herself the ardent friend of the working people. You Madam must be well aware, that numberless evils are produced by too large a family, not only as it makes the working man & his wife poor, but breaks their spirits, & qualifies them to be ill used & trampled upon by those who are richer.—If you will give one of the Bills to each of such married women as in your opinion may be usefull you will confer on them a great benefit. The

⁷ Page 165.

method recommended is getting fast into use amongst the working people in London, & will in a very few years produce the happiest consequences Mr. Carliles people know nothing of the contents of the parcel, but should you be pleased to notice it, have the goodness to direct to Mr. James at Mr. Carliles No. 5 Water Lane Fleet Street London the letter will be called for, any number of bills you may desire to have shall be sent to you

by a sincere well wisher
to the working Classes.⁸

It is stated that Mrs. Fildes ultimately became an advocate of the practice thus suddenly brought to her notice.⁹ At first however, outraged and indignant, and unable to fix the responsibility on Mr. Taylor,¹⁰ she reported the happening to the Attorney General. Six weeks later, having received no answer, she addressed herself to Richard Carlile, who, for his zealous efforts to establish the freedom of the press, was at that time in Dorchester Gaol, in his characteristic state of imprisonment. Her letter, which begins with a brief narrative of the episode of the handbills, and an outcry against the indignity she had suffered, concludes thus:

. . . I feel indignant at the insult which has been offered me; Is it possible that this infamous handBill has issued from the encouragers of the doctrines of the cold blooded Malthus or [his] servile supporter the detestable Lawyer Scarlett?

I have no redress but what is afforded me through the medium of a free press; I submit this infamous transaction to you under a hope that you will give it that consideration which (I think) so flagrant an attack upon the morals of the community demands; hoping that you will expose the propagators of this infamous hand Bill

I am Sir

yours very Respfy

Mary Fildes¹¹

The story of the handbills was given publicity through Wooler's paper *The Black Dwarf*. Wooler did not approve the principle of the handbill; but inasmuch as he conceived that it was his function to insure the open discussion of topics which were in

⁸ Letter from Mary Fildes to "Mr. Richard Carlile, Dorchester Gaol. . ." Place Papers, British Museum (Hendon), vol. 68. [Place's "guard-books," containing for the most part newspaper clippings, are kept at the Hendon storage building of the British Museum newspaper room. Reference to these volumes in subsequent notes of this article will be made in abbreviated form: e. g. "vol. 68, Hendon."]

⁹ G. J. Holyoake, *Sixty Years of an Agitator's Life*, vol. i, p. 130; and *The Republican*, xi, p. 561.

¹⁰ Cf. *Black Dwarf*, xi, 461-464; J. E. Taylor, *To the Public* (1823).

¹¹ Letter to Carlile, as cited above.

danger of being suppressed, he published Mrs. Fildes' letter and also reprinted the contents of the handbill itself, with the anonymous note which Mrs. Fildes had found in the package.¹²

The authorship of these strange leaflets naturally became a matter of curious speculation. A pamphlet on "The History of the Diabolical Hand Bill" was issued in Manchester, championing the cause of Mrs. Fildes,¹³ and presenting a circumstantial narrative of the facts in the case with more or less obvious bias of hostility to Mr. Taylor. He, however, had succeeded in disclaiming responsibility in a letter to the *Black Dwarf*,¹⁴ which he subsequently republished, together with other correspondence, in a leaflet addressed "To The Public."¹⁵ Far more important, therefore, were allegations which ascribed the handbill to Robert Owen, the philanthropist-reformer of New Lanark.

The first public reference to Owen in this connection occurs in the *Black Dwarf* of October 1, 1823, to which one James Macphail communicated the following extract from an anonymous letter which had been received by the editor of the *Labourer's Friend*:

You, I am sure, will give that truly benevolent man, Mr. Robert Owen, credit for good intentions. whatever opinion you may entertain of me, as an unknown correspondent. I will therefore relate an anecdote respecting him. It was objected to his plan that the number of children which would be produced in his communities would be so great, and the deaths from vices, misery, and bad management, so few, that the period of doubling the number of people would be very short, and that consequently in no very long period his whole plan would become abortive. Mr. Owen felt the force of this objection, and sought the means of averting the consequences. He heard of the small number of children in French families compared with English families. He knew from authentic sources that the peasantry in the South of France limited the number of their progeny. He knew that while our unfortunate countrymen were reduced to pauperism, and to six shillings a week wages, the peasants in the South of France received 2s. 6d. a day,

¹² *Black Dwarf*, vol. xi, pp. 404-411; Sept. 17, 1823. For Wooler's attitude, cf. Taylor, *To the Public*.

¹³ *The History of the Diabolical Hand Bill, for checking Population; With the various Correspondence which has taken place, on this subject with Mrs. Fildes, Mr. J. E. Taylor, The Attorney General, Mr. Wooler, and Mr. Carlile. With an interesting Statement from the latter respecting Mr. R. Owen, the Lanark philanthropist!! With observations by A. Clark.*

Manchester: Published and sold by T. Crabtree. 1823.

¹⁴ Vol. xi, pp. 461-464.

¹⁵ "Printed at the Guardian Office, Manchester," and dated Oct. 8, 1823.

which in their fine climate, and with their abstemious habits, enabled them to live in the most comfortable manner. He knew that these people were cleanly, simple and well provided with everything desirable in abundance, and he knew also that they married young. Mr. Owen resolved to ascertain the means by which this desirable state was produced and maintained. He went to France, discovered the means which prevents too rapid a population, and he brought back with him several [specimens of the contrivance there in use], two of which he gave to his friend who had been the cause of this inquiry. Mr. Owen no longer feared a too rapid increase of the people in his communities; he saw at once what to him was most desirable, the means of marrying all his people at an early age, and limiting their progeny to any desirable extent. Ask him, and he will acknowledge what is here asserted. Do not then condemn this virtuous man to punishment here and hereafter, because he entertains opinions which you call abominable. What Mr. Owen saw would be the greatest of all evils in his communities, is the greatest of all evils in the great community of this nation; and is tenfold increased in the community which composes the Irish people.

The source of this surprising statement is hardly less interesting than its unequivocal character. Almost certainly it emanated from no less an authority than Francis Place. For among Place's manuscript copies of correspondence are to be found drafts or transcripts of the letters to the editor of the *Labourer's Friend*, from one of which Macphail had extracted the Owen anecdote. With them is the manuscript of an anonymous letter to the *Black Dwarf*, explaining, as Macphail had not deigned to explain, the purpose of the anecdote in its original context.¹⁶ The details of the anecdote are essentially repeated, if not confirmed, in Carlile's letter to Mrs. Fildes, printed in "The History of the Diabolical Hand Bill." Impliedly, the story had come to Carlile's knowledge some time before. But the strongest testimony to its authenticity comes from the reflection that Place was through his friendship with Owen and through his position in the propaganda preëminently likely to know the facts of which he spoke.

¹⁶ A portion of Place's anonymous letter was printed in the *Black Dwarf*, of October 8 (vol. xi, pp. 505-8).

It is true of course that copies of unsigned letters are not in themselves absolutely conclusive of the authorship. Every indication, however, marks these letters as the work of Place. The omission or modification of certain passages makes it clear that the Place copies were not taken from the printed version. There is no reason to regard them as the work of any person but Place.

Such allegations contrast strangely with the prevailing view of Owen's biographers,¹⁷ strongly supported by his own writings—the view that he denied the Malthusian principle of excessive pressure of population against the limits of subsistence. Possibly the secret knowledge that stringent preventive checks were in use at New Lanark, if such really was the case, made it easier to assert that overpopulation need not be feared by the social reformer. Possibly there is significance in the statement of Malthus, first published in the fifth edition of the "Essay" in 1817, that Owen was "fully sensible" of the difficulties which must be experienced from the principle of population in any attempted state of equality of possessions; and that, although he had "in consequence taxed his ingenuity to the utmost to invent some mode" of evading the difficulty, he had only demonstrated his "absolute inability to suggest any mode of accomplishing this object that is not unnatural, immoral, or cruel in a high degree."¹⁸ One contemporary professed to believe that the controversy between the Rev. Mr. Menzies and Robert Owen touching sexual morality at New Lanark was a sign that the French check had been put into operation there.¹⁹ It is certainly true that Owen traveled in France in 1818. During his further journey through Switzerland he records²⁰ a "mutually interesting" conversation with Sismondi, whose "Nouveaux principes d'économie politique", published in 1819, contained—though perhaps by mere coincidence—a remarkable chapter on the moral duty of continuing prudential restraint after marriage. Owen's own son was later the author of a book prominent in the literature of neo-Malthusianism; and his book was in due course announced in the pages of *The Crisis*, of which father and son were joint editors.²¹

The *Black Dwarf*, in making public Macphail's communication, had remarked that the charge seemed "to require a contradiction from Mr. Owen, if it be untrue."²² The contradiction never came. Holyoake is satisfied, on this ground, that Owen was the

¹⁷ Cf. Holyoake, *Sixty Years of an Agitator's Life*, vol. i, p. 131; *Dictionary of National Biography*; Podmore, *Robert Owen*, vol. i, p. 225 note; as well as Owen's autobiography and other writings.

¹⁸ Bk. III, ch. iii.

¹⁹ *History of the Diabolical Handbill*, pp. 13-14. Cf. *Black Dwarf*, vol. xi, p. 437.

²⁰ In his *Life*, vol. i, p. 173.

²¹ In the issue for October 27, 1832, and the following issue.

²² Vol. xi, p. 499.

author of the handbill.²³ The evidence does indeed go far to establish Owen's approval of the methods which the bill described; but more is not proven. For plainly, if he favored the principle, any attempt on his part to deny that he had so promulgated it would have been hazardous and probably futile.

Search elsewhere for the authorship of the handbills gains a clue in the allusion to Owen's "friend who had been the cause of this enquiry." By friendship and by professed opinion either James Mill or Place was qualified to have played this part. Place was Owen's friend; Place had urged that excessive population would prove the undoing of the New Lanark experiment;²⁴ and Place it was who, by his anonymous letter, was showing himself familiar with Owen's alleged action. That Place was a most active and persistent circulator of the literature of the new check will presently be shown. Was he perhaps the author of the Diabolical Handbill?

Among Place's papers the handbill is to be found in three forms: the form which was sent to Mrs. Fildes, and two others, apparently later differentiations of the original,²⁵ and headed, respectively: "To the Married of Both Sexes of the Working People", and "To the Married of Both Sexes in Genteel Life." On these no name appears; though it was Place's custom to indicate the authorship of the documents he preserved. In addition to the printed handbills there is a manuscript of another bill "To the mature reader of both sexes."²⁶ The handwriting is unlike that of Place; the ink is of a kind which he did not ordinarily use; the subject matter is pervaded by a naïve physiology, with almost no appeal to economics. Below, as if supplied by Place, is the name Benjamin Aimé. The Triennial Directory of London for 1822 lists Benjamin Aime (without the accent) as a musical instrument maker of 3 Panton street, Haymarket. Whether or not Benjamin Aimé was the author of this draft, his connection with the handbills actually printed is doubtful.

Two allusions to the authorship of the bill occur in Place's letters. On July 12, 1823,—four days later than the date of the note sent to Mrs. Fildes—Place wrote anonymously to the

²³ *Sixty Years of an Agitator's Life*, vol. i, p. 130.

²⁴ See, e. g., a letter to Thomas Hodgskin, dated Sept. 8, 1819. British Museum, Additional MSS. 35,153, ff. 68-72.

²⁵ Cf. *The Republican*, xi, p. 561.

²⁶ Vol. 68, Hendon.

editor of *The Labourer's Friend*,²⁷ arguing that the means of improving the condition of the laboring classes was restriction of population according to the "method recommended in the bill inclosed with this." "The bill", he added, "is not exactly such an one as I should bestow unqualified approbation upon, but [is] such as I have received²⁸ it, and as such I send it." Another letter in Place's handwriting and manner, unsigned, unaddressed, and undated, but most probably written in 1824,²⁹ contains the statement: "In order to do my part towards restoring a more prosperous and happier state of society, I have caused to be printed and have forwarded to you some bills" ³⁰ Such evidence as is given us by these two letters is therefore at first sight contradictory. The wording of the earlier letter, however, may be not so much a denial of authorship as an evasion of responsibility, not surprising at a time when the propaganda was newly feeling its way. The later letter does not rule out the possibility that Place, instead of having himself written the handbill, may have "caused it to be" written as well as printed.

The two statements might be reconciled, though each were accepted in its most obvious meaning, if it were assumed that they referred to different forms of the bill and that these were the work of different persons. Probably they did in fact refer to different forms of the bill. The first letter is known to have transmitted the same bill which had been sent four days previously to Mrs. Fildes:³¹ the conjectural date of the second would rather correspond with the period of the revised versions. The suggestion that the revision was performed by a new hand receives some support from internal evidence. Place's workmanship is unquestionably less apparent in the original handbill than in the adaptations for the genteel and for the working people, which manifest, not only in their general argument but in idiosyncracies of word and phrase, a striking resemblance to his authentic writings. Opposed to this hypothesis is the testimony of contemporary

²⁷ Included in the communication to the *Black Dwarf* of Oct. 1, 1823. Place papers, Hendon, vol. 68.

²⁸ This crucial word "received" is obscurely written, but careful comparison with other occurrences of the same word justifies the reading given.

²⁹ This date is suggested by a reference to a report to Parliament on parish conditions of pauperism, and a resemblance to the letters referred to below, p. 223.

³⁰ Vol. 68, Hendon.

³¹ *Black Dwarf*, vol. xi, p. 500.

judgment. Cobbett found "that there were *three* separate productions of this sort all proceeding from the same source"; and Carlile, after four years of correspondence with Place, reprinted all three handbills with the admission that he knew "whence these papers emanate."³² If the several forms had a common authorship it is more likely that Place wrote all than that he wrote none.

Geographically, too, the trail of the handbill leads toward Place. The propagandist literature emanated, according to all the evidence at hand, from some person or persons in London. In the Benjamin Aimé manuscript for instance, one reads that "some respectable persons in the metropolis of this country, . . . have enquired after a means which is here unfolded." The handbill, in its earlier days, circulated among the Spitalfields weavers.³³ Cobbett, attacking it, remarks: "I have been told, and I believe, that it was *printed for one of the Rump*"³⁴—that is to say, the "Westminster Rump", the radical political group dominated by Place. Mrs. Fildes' package had seemingly come to Manchester from London. The note within the package was dated in London, and mentioned the rapid spread in London of the check it recommended. Indeed the evidence of this note is perhaps more specific still; for its language suggests that it was written by Place,³⁵ and Mrs. Fildes' letter to Carlile, protesting against it and against the leaflets which accompanied it, is to be found among the papers of the Place collection.³⁶

Others of the Place papers serve to mark their collector as one peculiarly associated with the handbill and its doctrine. A remarkable communication in a laboriously disguised hand, without definite address, tacitly addresses itself to "The author of the scheme for propagating by the secret distribution of printed papers the knowledge of the means to be used for preventing conception. . . ."³⁷ An anonymous, illiterate appeal to Carlile for information about the method of prevention is here, as if referred

³² *Cobbett's Weekly Register*, April 15, 1826, vol. lviii, column 137. *Every Woman's Book*, p. 11.

³³ Carlile, in the *History of the Diabolical Hand Bill*.

³⁴ *Cobbett's Weekly Register*, vol. liv, column 108.

³⁵ It is however recorded that a certain guest of Mr. Taylor, whose name is not mentioned, failed to recognize the handwriting of any of the "London Radicals" in the note asking Mr. Taylor to deliver the parcel. Cf. *Black Dwarf*, xi, 462.

³⁶ Vol. 68, Hendon.

³⁷ Vol. 68, Hendon.

to the source of information.³⁸ Especially interesting is a journalistic tilt between the editors of two working-class periodicals of the time. *The Trades' Newspaper and Mechanics' Weekly Journal* of August 27, 1825, had denounced, as violations of public decency, "certain 'detestably wicked practices' recommended for the adoption of the working classes, by a class of political meddlers who call themselves Political Economists. . . ."³⁹ The *Artizan's London and Provincial Chronicle*, on September 4, replied, with more of loyalty than of judgment:

It would be idle affectation not to appear to understand at whom this assassins paragraph is levelled! It is a *rival* of the vengeful EDITOR; the author of a volume printed in 1822, entitled "*Illustrations and Proofs of the Principle of Population*;" a work in the highest degree calculated to improve the condition of the working classes. . . .

A week later the vengeful editor rejoined as follows:

How far *Mr. Journeyman* is in the right in claiming for his friend and correspondent, the credit of advocating those detestable practices which we have denounced, will depend on the answers which he may be able to give to the following queries:—

Is the author of the "*Illustrations and Proofs of the Principle of Population*," published in 1822, the author also of a small hand-bill, entitled, "A MATRIMONIAL INDEX to the POPULATION TABLES, shewing at one glance, the State of the existing Supply and Demand for Labourers," and which being too small for sale, and designed besides for extensive circulation among the poorest of the community, was distributed gratuitously in the form of wrappers to farthing candles, and half ounces of snuff?

Is the author of the "*Illustrations and Proofs*," the author also of a "*MARRYING MADE HARMLESS, a Dialogue between Frank and Sally, Two Servants out of Place*," price 2d. or 10s. per hundred [?]

Is the author of the "*Illustrations and Proofs*" the author also of a short paper which appeared in one of the last numbers of *Mr. Wooler's* paper, pointing out in plain enough terms certain French methods of having only as many children as you please; and which paper was printed in a separate form for more general circulation?

Is the author of the "*Illustration[s] and Proofs*," the author also of a letter which appeared but the other day in the *Morning Chronicle*, on "*PROFITS AND WAGES*," in which the writer is pleased to say, that "it is worse than useless, it is exceedingly pernicious to lead any body to suppose that ANY THING SHORT OF A REDUCTION IN THE NUMBER of the people can procure them good wages," and that there is "by far too much *squeamishness* amongst us," as to the means of effecting that reduction?

Was it the author of the "*Illustrations and Proofs*," who employed

³⁸ Vol. 68, Hendon.

³⁹ This summary statement is from the *Trades' Newspaper* of Sept. 11.

certain young gentlemen (only think of employing *young* gentlemen on such a mission) to hand about at market time among the wives and daughters of mechanics and tradesmen, copies of one or other of the productions aforesaid, and which young gentlemen were, for their pains, dragged by an indignant crowd before a Magistrate, and held to bail, (though by some well-understood manoeuvring, never brought to trial) for the misdemeanour?

If *Mr. Journeyman* can reply in the *negative* to every one of these queries—if the author of “The Illustrations and Proofs of the Principle of Population” is the author of none of the aforesaid productions, and has had no hand whatever in promoting the circulation of all or any of them, then all we have to say is, that *Mr. Journeyman* has done him great injustice in supposing that he is the individual at whom our paragraph was levelled. He has clapped a hat on his correspondent which does not belong to him.⁴⁰

In view of all the evidence here presented, and until more conclusive evidence is forthcoming, we may adopt the working hypothesis that the Diabolical Handbill in its original form was written possibly by Robert Owen, but more probably by Place or some other person within the circle of Place’s connection; and that the bills addressed respectively to the Working People and to those in Genteel Life were probably later versions by Place himself.

Whatever doubt enshrouds the relation of Place to the handbills, his persistent and zealous efforts in the dissemination of the views they expressed are clear beyond question. Such a career of propagandism was quite in character with Place’s enthusiasm for organizing social reforms, and with his dogged courage in championing whatever cause his principles pointed out to him. The conviction that overpopulation was the root of economic ills—“the master evil”⁴¹—had been deeply impressed on him in the experience of his own earlier years.

Fortunately the story of Place’s life has been so well told by Mr. Graham Wallas⁴² that a mere allusion to its outlines will suffice us here. He was born, in 1771, in a London private debtor’s prison. His father, the keeper of the prison, was a brutal,

⁴⁰ *The Trades’ Newspaper and Mechanics’ Weekly Journal*, Sunday, Sept. 11, 1825, in Place papers, Hendon, vol. 61, p. 52.

The *Morning Chronicle* article on Profits and Wages was signed F. P. and is acknowledged by Place (Place papers, vol. 61, p. 50). I have no other knowledge of *A Matrimonial Index* or of *Marrying Made Harmless*.

⁴¹ Letter to Miss Martineau, Add. MSS. 35,149, f. 189 b.

⁴² *The Life of Francis Place, 1771-1854*. London, 1898.

dissolute man, and an inveterate gambler, who frequently deserted his family and who, after making scant provision for his son's early education, in a passing fit of temper turned him over as apprentice to the master nearest at hand—a drunken maker of leather breeches. The boy, left to himself, spent his evenings in the low companionship of the streets. His marriage to a girl not yet seventeen years old, before he himself was twenty, proved the great moral influence of his life, and lifted him, smirched but not deeply stained, from the mire of his past surroundings. But marriage brought economic burdens also; and when, two years later, a strike left him, his wife, and his child on the wretched verge of starvation during eight months in which he could find no work, he passed through an acquaintance with misery that never faded from his mind, and colored all the economic opinions of his later career.

Gradually, by indomitable spirit and prodigious industry, Place worked himself upward, through various vicissitudes, to the position of a prosperous master tailor. In a room behind his shop at Charing Cross he had accumulated a remarkable library; and here, to consult his books and him, came many of the notable politicians and men of letters of the day. By the time he became prominent as a writer on population he was a man of fifty, already retired from business with a comfortable income, deeply versed in the economic and political views of the time, and exercising a quiet but far-reaching influence as an organizer of social reforms.

The population question had long interested him. In a letter of the year 1833⁴³ he writes:

My attention was called to the Principle of Population soon after Mr. Malthus published the first edition of his Essay and I have ever since been a careful observer of and a diligent enquirer into the habits and circumstances of the working people, and especially in regard to the consequences of population amongst them.

The conclusions he drew from his inquiries were fundamentally in accord with the orthodox economics. The excessive power of increase in mankind he held indisputable. The laboring classes were depressed by excess of numbers: only through better adjustment of numbers to the conditions of employment could they hope to rise. Conditions of employment in turn were limited by the amount of available capital. Except as additional capital

⁴³ To W. F. Lloyd, Add. MSS. 35,149, ff. 229-30.

could be accumulated and utilized, population must be kept down by the operation of some check; and, as Place wrote before the days of the propaganda, "the Messrs. Vice and Misery, of Malthus, is the only firm that can keep them down at all."⁴⁴

The Malthusian recommendation of moral restraint, in the sense of long-delayed marriage, was in Place's eyes an utter absurdity. His own early marriage had been his salvation. He had failed to live decently in celibacy even to the age of nineteen: and, for the man of the laboring class who awaited assured means of supporting a family before taking a wife, the horror of this youthful experience foretold to him hopeless immorality. But experience no less emphatically warned him that early marriage meant many children. He himself, it is recorded,⁴⁵ was the father of fifteen, of whom five died in childhood. James Mill, who antedated him as a herald of neo-Malthusianism, had, while still struggling for a precarious living, nine children: "conduct than which nothing could be more opposed, both as a matter of good sense and of duty, to the opinions which, at least at a later period of his life, he strenuously upheld."⁴⁶ Small wonder, with Place's experience of discreet paternity, that he should write a little bitterly to Ensor⁴⁷ of "moral restraint, which has served so well in the instances of you & I—and Mill, and Wakefield—mustering among us no less I believe than 36 children—. . . rare fellows we to teach moral restraint."

So stood Place the reformer, between the devil of vice and the deep sea of misery, ready material for conversion to advocacy of the new form of preventive check.

The dawning idea of artificial restriction may conjecturally be dated from 1818—the year of James Mill's "Colony" article, and Owen's visit to France. The development of active propaganda was later: the date of Place's book and a statement in one of the handbills,⁴⁸ taken with other evidence,⁴⁹ suggest as

⁴⁴ Letter to G. Ensor, Jan. 18, 1818. Add. MSS. 35,153, f. 41.

⁴⁵ Wallas, *Life of Francis Place*, p. 38; and article: "Francis Place," in the *Dictionary of National Biography*. But on p. 194 of the *Life* the number is given as fourteen.

⁴⁶ J. S. Mill, *Autobiography*, p. 3.

⁴⁷ Add. MSS. 35,153, f. 41.

⁴⁸ "Within the last two years, a more extensive knowledge of the process has prevailed. . . ." (*To the Married of Both Sexes in Genteel Life*.)

⁴⁹ Especially Carlyle's letter in *The History of the Diabolical Hand Bill*.

the most probable date the middle of 1822. Meantime the evidence shows that Place was seriously studying the subject. Critical notes on the 1817 edition of Malthus' "Essay", made in April, 1819, are among his papers.⁵⁰ In the early part of 1821 he had begun his "Illustrations and Proofs",⁵¹ provoked by the "peevishness" and inconsequence of Godwin's senile "Enquiry."⁵² "I will not", he said,⁵³ "follow Godwin's example, and do it in bad temper . . . I will treat both Godwin and Malthus as Gentlemen & Scholars, and will shew that I am not afraid of discovering the truth." He borrowed, through Ricardo, Malthus' own copy of the "Essay" of 1798.⁵⁴ But he was not content merely to arbitrate an old dispute, as is sufficiently attested by his resolute⁵⁵ inclusion of the epoch-marking chapter on "Means of Preventing the Numbers of Mankind from Increasing Faster than Food is Provided."

In 1822, with his book before a startled public, Place found himself committed to the policy he had thus announced.

From this time forward Place continually advanced the neo-Malthusian position in argument with every working-man whose confidence or gratitude he could earn, in every working-class newspaper that would admit his letters, and in his correspondence with private friends and public acquaintances. As a consequence his name, for twenty years, was hardly ever mentioned in print without some reference, deprecatory or abusive, to his notorious opinions. Good men refused to be introduced to him . . .⁵⁶

In 1834 the committee of the Society for Promoting Useful Knowledge refused his aid in preparing tracts for the working people on the ground that "they ought to recollect what Mr. Place had written respecting Population and to take care not to identify the Society with him." The account in which Place has recorded this episode⁵⁷ clearly reflects the strong prejudice against him which then prevailed. Especially was this prejudice felt among certain factions of the working classes, for

⁵⁰ Vol. 68, Hendon.

⁵¹ Cf. the Preface, p. xiii.

⁵² *Of Population. An Enquiry concerning the Power of Increase in the Numbers of Mankind.* By William Godwin. London, 1820.

⁵³ In an "unsent" reply to W. H. Rosser's letter of Jan. 26, 1821. Vol. 68, Hendon.

⁵⁴ See a letter from Malthus dated Feb. 19, 1821. Vol. 68, Hendon.

⁵⁵ Cf. the introduction, p. xii.

⁵⁶ Wallas, *Life of Francis Place*, p. 169.

⁵⁷ Add. MSS. 35,154, ff. 185 *et seq.*

whose benefit Place believed he was acting. Cobbett was abusive. In particular he caricatured Place in the character of "Peter Thimble, Esq., a great Anti-Population Philosopher", who figures in Cobbett's diverting "comedy in three acts" entitled "Surplus Population."⁵⁸ Feargus O'Connor and Bronterre O'Brien, among the Chartists, were hostile.⁵⁹ But all this Place had foreseen; he faced it deliberately. "I am well aware", he wrote, "of the obloquy any one must encounter who may explain the true bearings of the question. He must expose himself to many imputations, and this I am prepared to do."⁶⁰

An audacious instance of his propagandism is afforded by copies⁶¹ of letters addressed to clergymen who had testified before the Select Committee on Labourers' Wages, in 1824. One of these copies, marked with the names of Rev. John Pratt and Rev. Anthony Collett, is guarded in tone—ingratiatingly praising the knowledge displayed in the testimony, but expressing doubt of the practical outcome, and concluding with the assertion that "*The people alone can serve themselves*, and most assuredly they will do so when they shall come to understand the means."

To Rev. Dr. Goodwin, and to Rev. Philip Hunt, Place writes more unreservedly:

Sir

I have read your evidence before the "select committee of the House of Commons on Labourers Wages" — and have taken the liberty to forward a parcel to you. This I should not have done had you not appeared to me to be a good and a wise man. The evils of poverty, the evils of bastardy—the evils of the poor laws as you are compelled to administer them, and the consequent degradation of the Labouring people are lamentable, nay highly afflicting circumstances. One only remedy will ever be found, and that is checking the increase of population by physical means, time will work the remedy as proposed, when sufficiently known. It is doing so in many places where it has been made known, and the best consequences will no doubt follow.⁶²

⁵⁸ London. n. d. (Probably 1823).

⁵⁹ *Dictionary of National Biography*, s. v. "Place."

⁶⁰ From a fragment of MS. *Essays on the Principle of Population addressed to the Working Classes*, 1824, Vol. 68, Hendon. One or two errors of the original, in punctuation, etc., have not been transcribed.

⁶¹ Vol. 68, Hendon.

⁶² Vol. 68, Hendon.

Apparently of similar purpose is the following unaddressed draft of a letter already referred to⁶³ in another connection:

Sir:

By an account of your Parish laid before Parliament, I find a statement which has been copied into a newspaper which I inclose with this. It appears that a very great increase of people has taken place within the last 20 years and that the whole of the increase has been added to the paupers. A truly lamentable circumstance. If you will have the goodness to examine into the causes, and to think of the consequences of this terrible state of society you will not fail to discover, that no Legislative enactment can cure or even mitigate the evil, but that on the contrary, all such enactments must as they have hitherto done, continually increase it,—that every Legislative and *Parochial* interference, must inevitably still further degrade the people, that the more they are degraded; the less provident they will become, and that as their provident care diminishes so their numbers will increase, until wretchedness, and crime, ignorance and brutality shall make England a place not fit to live in. In order to do my part towards preventing such tremendous evils,—towards restoring a more prosperous and happier state of society, I have caused to be printed and have forwarded to you some bills, which however much they may revolt you on a first perusal, will I am sure on a serious consideration, be approved, and I hope be the means also, of preventing much evil.⁶⁴

Other letters may be cited as indicating the progress of the propaganda. On September 1, 1824, Place wrote to the philanthropic Robert Goulley: "Well my good friend, so you have become reasonable at last. I knew you would not hold out long when you came to reflect." And, after an argument from the analogy of emetics to prove "the proposal no more unnatural than medicine or surgery", he added: "You will be an advocate for it in another month or less."⁶⁵ From a different quarter, two weeks later, comes "Letter I. on Population and Wages; addressed to the Labouring Classes; by an Operative Weaver",⁶⁶ with similar resort to medical analogies, and persuasive use of other forms of appeal which suggest that the writer—W. Longson, of Manchester—was not only the correspondent but the disciple of Place. The spread of such doctrines in the industrial district of Lancashire is attested by the following report from the outposts:⁶⁷

⁶³ See above, p. 216.

⁶⁴ Vol. 68, Hendon.

⁶⁵ Vol. 68, Hendon.

⁶⁶ Vol. 68, Hendon.

⁶⁷ Vol. 61, Hendon, p. 60.

Bolton March 18th 1826.

Sir:

I received on monday last a parcel containing a quantity of Pamphlets calculated in my opinion to make an indelible impression on our *thinking* poor. As I could not mistake the object for which they were sent, have engaged a person (who travels through this country with *Sedition & Blasphemy*) to distribute them, I am happy to inform you that in the most poverty stricken districts, he has sold a large quantity of "*What is Love*" and he does not despair of the supply I furnished him with, having great effect in the same quarter.

In my own opinion nothing can be more plain, than the absolute necessity of the Anti-conception plan, and am happy to say that it is every day getting more popular . . . I can not but look upon the promoters of this measure, as persons who have deserved well of their country and hope to see the day when votes of thanks &c will be as common to them as to those who are supposed to have rendered the state eminent services in some other line.

A young man a friend of mine has promised to write an article on the subject, in order if possible to provoke discussion in the two Newspapers published in this town, which we conceive will be of great service to the cause . . . I assure you in my private circle no stone is left unturned to make my unfortunate countrymen sensible of the *crime* of bringing children into the world to be starved or cut off by disease &c . . .

My respects to Mr Carlile & family

And believe me

Yours very resptf

Wm. Smith.⁶⁸

Carlile's description of the handbills circulating "in thousands . . . throughout the populous districts of the North"⁶⁹ testifies that the work was thoroughly done.

In the periodical literature of the artificial check, particular interest attaches to a series of articles in the *Black Dwarf*. These began with the publication of Mrs. Fildes' letter to Carlile, in the issue for September 17, 1823,⁷⁰ under the caption "Practical Endeavours to Apply the System of Mr. Malthus in Checking Population", and included statements by Mr. Taylor and James Macphail, and Place's anonymous letter to the *Labourer's Friend*. Later, in fulfilment of the editor's promise to "take up the question of population", and "to try the various systems by

⁶⁸ In this as in some other citations, trivial errors of punctuation, etc., have occasionally been corrected when no reason appeared for retaining the original inaccuracy.

⁶⁹ *The Republican*, vol. xi, p. 555.

⁷⁰ Vol. xi, p. 404.

a little common sense", more substantial discussions were printed. The editorial position of the *Black Dwarf* merits especial attention: it was indicative of the radicalism of the period.

The *Dwarf* was hostile both to the form of check proposed and to the whole contention that a check was needed. He feared a letting down of the bars of morality:

I am not apt to startle at the ordinary cant about violating the laws of nature; but I am ready to confess that in the remedy proposed, I see a tendency to moral evils of the most aggravated description.⁷¹

He foresaw, too, what the propagandists did not see, that through power and experience of control, "modern refinement" might "be brought to consider child-bearing as the evil of all others to be avoided."⁷² And after all, as he believed, no ground for restriction had been shown.

. . . if our population regulators had been the directors, the first couple would have left only a pair or two behind them, lest they should have perished for want of food.⁷³

But instead, the course of history had demonstrated the adequacy of food supply. Unutilized abundance existed still. Thus the *Dwarf* fell back on the old fallacy which Malthus had somewhat overreached himself in discrediting: the inference that since some were well-off, all might be; and that, once given an equitable division, population might increase indefinitely and yet find the means of its own adequate support.

The truth is, that there is quite enough for all, if there were not a portion of society who are continually depriving others of their portion . . .⁷⁴

The real evil is

No more, no less, than a *despotic government*, and a *rapacious church establishment*!⁷⁵

The "preventive system" is accordingly unnecessary. Indeed, it is worse: it might prove a palliative! At this point the *Dwarf*, with splendid inconsistency, becomes a Malthusian:

The natural remedy for such a corrupt state of things, is the

⁷¹ Vol. xi, p. 780.

⁷² Vol. xi, p. 405.

⁷³ Vol. xii, p. 145.

⁷⁴ Vol. xi, p. 405.

⁷⁵ Vol. xi, p. 698.

INCREASE of population, even to the extreme of pressure against the means of subsistence; for . . . it is only by reducing [the multitude] to a state bordering on despair, that they will ever be induced to avenge their wrongs, or to claim their rights. . . .⁷⁶

. . . We do not wish men to be comfortable, if they could be so for a period, under a *bad system*. . . .⁷⁷

. . . so far from excess of population being the cause of the evil, it will be found to be the only effectual remedy.⁷⁸

Closely similar views were at one time held by the arch-radical Richard Carlile, the story of whose conversion bears impressive tribute to the power of the propaganda. He first appears in the discussion as the writer of a letter to Place,⁷⁹ dated Dorchester Gaol, August 8, 1822, and referring to Place's recently issued book—the "Illustrations and Proofs of the Principle of Population." Carlile was contemplating the preparation of an article on Population to be published in his paper, *The Republican*, and wrote for information. In particular he declared himself apprehensive lest the proposed preventive methods should encourage immorality by facilitating the concealment of illicit relations.

Place's reply⁸⁰ affords the most elaborate example of one of his characteristic arguments. So far as the lower classes are concerned, the dread of moral lapse is mere illusion. The virtue which might be jeopardized hardly exists: "there is no chastity among the absolutely poor", and not much in the ranks just higher; for the conditions of existence make it all but impossible. Overpopulation so crushes wages down that girls grow up in squalid poverty and men dare not marry. Then comes the supreme misery of prostitution, wasting the lives of its immediate victims, and perverting, in all whom it touches, the whole attitude of men to women. A remedy for overpopulation will not extinguish vice, but it will make attainable a larger measure of virtue.

In the same letter Place set about the work of winning Carlile to the cause.

. . . I shall . . . make a few remarks . . . not such as will convince you; that I do not even wish; but, such as I hope may tend to induce you to keep cogitating on the subject, that conviction

⁷⁶ Vol. xi, pp. 409-10.

⁷⁷ Vol. xi, p. 705.

⁷⁸ Vol. xi, p. 910.

⁷⁹ Place papers, vol. 68, Hendon.

⁸⁰ Vol. 68, Hendon.

may arise from full examination. . . . I cannot for a moment doubt the result and I wish you would take the trouble to think the subject well, laying aside your feelings and attending only to Reason, Never mind, however painful or repugnant. If to understand the true situation of mankind it becomes necessary to go through a painful course, there is no remedy but to take it or to remain in ignorance.

As for the projected editorial:

I do not see that you are called upon to take up the subject of Population in your publication . . . If you think you can do no service, refrain, If you think you can be useful go on.

So Carlile refrained and cogitated. More than two years afterward he alludes, in *The Republican*, to his original abhorrence of the preventive measures, and to the friend who had brought about his change of mind.⁸¹ The change was still incomplete—Carlile had become tolerant, but not enthusiastic:

I have not one word left to say against this proposed prudent check to the unhappy extension of numbers, where there are not the means to support them in comfort; but . . . I will not advocate it at present under the head of a great political principle.⁸²

Like the *Black Dwarf*, Carlile remained confident that food was abundant,⁸³ and convinced that the chief source of evil resided in existing institutions. So he wrote:

I maintain . . . that bad government and a priesthood constitute the evil[s] which at present degrade the people of this country.⁸⁴

And again:

. . . I will never complain of too many human beings, whilst all these removeable evils exist.⁸⁵

But another half year saw him wholly won over. *The Republican* for May 6, 1825, contained under the title "What is Love?" an article in which Carlile's spirit of reform turned to the problem of sex; and in which, "after three years of consideration; after passing a year with a feeling almost like dread of giving

⁸¹ *Republican*, vol. x, pp. 496-97.

⁸² *Ibid.*, p. 588.

⁸³ *Ibid.*, p. 495.

⁸⁴ *Ibid.*, p. 755.

⁸⁵ *Ibid.*, p. 591.

it thought",⁸⁶ he declared himself an advocate of the plan of the propagandists—"the last of a multitude of converts to the utility and importance of the measure."⁸⁷ His article, with modifications, was reprinted in February, 1826,⁸⁸ as "Every Woman's Book" and went through repeated editions. Fifteen hundred copies were exhausted in a few weeks.⁸⁹ Eight months after its publication it had "sold in its various editions to the extent of five thousand copies, with a continuing demand."⁹⁰

The popularity of the book was derisively attributed by its author to the abuse which Cobbett poured upon it. "Unintentionally or intentionally", wrote Carlile, "Cobbett has raised a demand . . . even in Wales";⁹¹ and more specifically: "The effect which Cobbett has produced with regard to this book has been to create a call for about fifty per day."⁹² Cobbett's denunciation of both book and author was indeed violent.⁹³ Nor is this surprising, for Carlile's fanatic and brazen hostility to what he called prejudice had here carried him outrageous lengths beyond the opinions held by Place and the saner members of the propaganda. Yet there is no occasion to question the oft-asserted sincerity of purpose which had produced the book. More and more Carlile became convinced of his full justification,⁹⁴ until he could say:

After years of consideration, and three years of clamour against it, I now and forever stake my moral reputation upon the character of that book and will stand or fall with it in public opinion. I will endeavour to be otherwise useful; but I have no desire to be known to posterity in a higher character than that of being the sole and unassisted author of "EVERY WOMAN'S BOOK."⁹⁵

The voice of disapproval was heard outside of England and called forth in America a pamphlet which has linked this early propagandism with the neo-Malthusian movement of more recent years. Robert Dale Owen had been publicly assailed, in New

⁸⁶ Vol. xi, 556.

⁸⁷ *Ibid.*, p. 563.

⁸⁸ Vol. xiii, p. 200.

⁸⁹ *Ibid.*, p. 622.

⁹⁰ Vol. xiv, p. 443.

⁹¹ Vol. xiii, p. 513.

⁹² *Ibid.*, p. 622.

⁹³ See especially *Cobbett's Weekly Register*, April 15, 1826.

⁹⁴ Cf. *The Lion*, vol. ii, p. 420.

⁹⁵ *Ibid.*, p. 428.

York, for approving "Every Woman's Book." That he admired Carlyle's courage he admitted; but he denied any admiration for the tone of the work.⁹⁶ To make his position clear he embodied it in a book of his own—the well-known "Moral Physiology", which, first published in New York in December, 1830, reached its fifth edition by the middle of 1831, and appeared in both authorized and unauthorized English editions in 1832.⁹⁷

"Moral Physiology" was not only incomparably superior to "Every Woman's Book" in moderation of manner, singleness of aim, correctness of information, and the manifest evidence of its philanthropic purpose; it was at the same time quite the most elaborate treatise on the new check which had appeared. Place at once adopted it for the furtherance of his views. As it happened, Miss Harriet Martineau was at that time busy putting up orthodox economics in those curious pellets which she called "Illustrations of Political Economy." Through her friend, W. J. Fox, she appealed to Place for information on the combination laws and the condition of workingmen.⁹⁸ Place seized the opportunity to send her a copy of "Moral Physiology", with a long and remarkably frank letter criticizing her interpretation of Malthusianism and urging his own.⁹⁹ Ten years of propagandism had somewhat rebuffed his hopes that his recommendations would be universally adopted, but he remained convinced of their efficacy. In a similar spirit, a year later, he sent "Moral Physiology" to W. F. Lloyd, Professor of Political Economy at Oxford, and author of "Two Lectures on the Checks to Population." In the anonymous letter which he wrote on this occasion he remarked:

Whether abstaining from propagating under undesirable circumstances will ever become general is doubtful, but the practice has been adopted as well by some of the working people as by persons who live genteel lives on narrow incomes, and it is increasing.¹⁰⁰

⁹⁶ Preface to *Moral Physiology*.

⁹⁷ The date of *Moral Physiology* is differently stated, but most of the reference books give it as 1831. December, 1830, seems to be indicated as the correct date by a remark in the appendix to the 5th edition, where Owen, under date of June 25, 1831, states that "seven months have not yet elapsed since the first publication of *Moral Physiology*." Concerning the English editions, see a statement by R. D. O. in the *Crisis* for October 27, 1832.

⁹⁸ Add. MSS. 35,149, f. 115.

⁹⁹ *Ibid.*, ff. 189b-192.

¹⁰⁰ *Ibid.*, ff. 229-230.

From this time on, so far as available records show, the activity of the propaganda slackened. The death of Malthus and the Poor Law Amendment removed almost simultaneously, in 1834, the personal figure about which population controversy had so long ranged itself, and the aggravated economic problem which had given concern alike to Malthus and to the followers whose half-alien opinions he had inspired. Other economic reforms crowded on the popular attention. Whatever may be the adequate explanation, radical proposals for the restriction of births almost ceased, until their spectacular revival nearly fifty years later. The cessation was not quite complete. Two new books, which attained subsequent notoriety in the neo-Malthusian movement, were put forth: Dr. Knowlton's "Fruits of Philosophy", published in Boston, Massachusetts, in 1833, and Dr. George Drysdale's "Elements of Social Science", published in London, in 1854.¹⁰¹ Occasional allusions of hostile writers also showed that at least the memory of the propaganda was not dead.¹⁰²

The movement had been no mere ruffling of the surface of contemporary thought. Eminent men had accepted its doctrines as an organic part of their philosophy. Wooler, in 1823, had found "men of rank and talent advocating them openly, in theory."¹⁰³ Cobbett identified the propaganda with the Westminster "Rump."¹⁰⁴ The Benjamin Aimé handbill had implicated "many medical men of the first rank." Carlyle tells us more:

In London, there is a sort of class, or society or connection of persons, composed of Physicians, Literati, Political Economists, Members of Parliament, with men and women of the first rank in point of fortunes and titles, so convinced of a redundancy of population, as to recommend a means of preventing conception . . .¹⁰⁵
 . . . I see the best and most wise of men labouring with a zeal to promulgate secretly a knowledge of this plan.¹⁰⁶
 . . . The men, who have been instrumental in making this matter known in this country, are all elderly men, fathers of families of children grown up to be men and women, and men of first rate moral

¹⁰¹ Dr. Charles R. Drysdale mentions (*Life and Writings of Thomas R. Malthus*, p. 113) *Large and Small Families*, by Austin Holyoake, as another tract of that period.

¹⁰² Cf. Hickson, in the *Westminster Review*, vol. lii, p. 141 (October, 1849); and Rickards, *Population and Capital* (1854), p. 194.

¹⁰³ J. E. Taylor, *To the Public*, p. 4.

¹⁰⁴ *Weekly Register*, vol. liv., col. 108, and vol. lviii., col. 419.

¹⁰⁵ *Republican*, vol. x, p. 496.

¹⁰⁶ Vol. xi, p. 555.

characters, of first rate learning, and some of the first politicians and philosophers that ever lived in this or in any other country: men, who are known, as above described, in almost every country in Europe and America. . . .¹⁰⁷

It is supposed, that the very Cabinet is acquainted with, and favourable to, this anti-conception scheme; from the quality and connections of the persons who are its advocates.¹⁰⁸

The probable fact is, as these statements imply, that the centre of the propaganda was the Benthamite group, of which Place was an influential member. According to Wallas, "the rest of the inner circle of Benthamites seem to have shared Place's opinion, though he alone faced the public scandal."¹⁰⁹ Grote is known to have presented "The Fruits of Philosophy" to the library of London University.¹¹⁰ As for Bentham himself, both his attitude and his caution are evinced in a letter to Place, touching a certain person's disapproval of Place's anti-population activities:

. . . As to the point in question, I took care not to let him know how my opinion stood; the fat would have been all in the fire, unless I succeeded in convincing him, for which there was no time . . .¹¹¹

James Mill's prominent connection with the propaganda is clear alike from his own early allusions to preventive methods and from the influence of his economic theories upon the arguments of the other anti-populationists: an influence which became unmistakable—was, in fact, expressly acknowledged—in the communications of "A.Z." and "A.M." to the *Black Dwarf's* discussion.¹¹² Indeed "A.M." is so like Mill in style as well as doctrine that but for his laudatory allusion to the master one might hazard a suspicion of their identity.

The case of John Stuart Mill has attained some notoriety. Immediately after Mill's death Mr. Abraham Hayward published in *The Times* a malevolent review of his life, and presently put a still more offensive account in private circulation. In this Mr. Hayward asserts that Mill

¹⁰⁷ Vol. xi, p. 564.

¹⁰⁸ Vol. x, p. 497.

¹⁰⁹ *Life of Place*, p. 169, note.

¹¹⁰ J. M. Robertson, in *University Magazine and Free Review*, vol. ix, p. 16—following Mrs. Bradlaugh Bonner's *Life of Bradlaugh*, vol. ii, p. 16, note.

¹¹¹ Bentham to Place, April 24, 1831. *Life of Place*, p. 82.

¹¹² See especially vol. xi, p. 665, and vol. xii, p. 238.

. . . fell under the notice of the police by circulating copies of "What is Love?" and flinging down the areas of houses, for the edification of the maid-servants, printed papers or broad-sheets containing [a description of preventive measures]. Nor was this a repeated error of his youth. It was the persistent error of his mature years, and not long since he was still making converts to the same theory . . .¹¹³

Mr. Christie, who replied to Hayward, does not believe that John Stuart Mill in later life persisted in his father's views on the limiting of population.¹¹⁴ Holyoake relates that Mill once sent him "a passionate repudiation of concurrence or recommendation in any form, of methods imputed to him."¹¹⁵ Nevertheless, Mill's "Principles of Political Economy", though without overt allusion to artifice, unmistakably inculcates the duty of parents to keep the size of families within the limits of the means of adequate support. The spirit of this book, and of some of the recently published letters,¹¹⁶ is far from suggesting any violent reaction from the youthful course which Christie himself admits:

. . . it is an undeniable fact that Mr. Mill, early in life, not when he was past twenty, but when he was seventeen, was, in company with some others, interfered with by the police for distribution of papers in promotion of a scheme for artificially checking the increase of population. He was not himself distributing, but one of his companions was with his knowledge.¹¹⁷

Mill was seventeen in the days of the Diabolical Handbill. Perhaps the occasion of this brush with the police was that same affair which the *Trades' Newspaper* described, when "certain young gentlemen" were "dragged . . . before a Magistrate."¹¹⁸ Beyond much doubt John Stuart Mill played at least a passive part in the handbill propaganda.

Whether or not Ricardo stood with Bentham and the Mills is not clear. His "Political Economy" was formulated and in print before Owen went to France or the "Colony" article was

¹¹³W. D. Christie, *John Stuart Mill and Mr. Abraham Hayward*, Q. C. (London, 1873) p. 8.

¹¹⁴*Ibid.*, pp. 11-12.

¹¹⁵G. J. Holyoake, *Bygones worth Remembering*, vol. i, p. 270. Holyoake, however, has elsewhere shown himself untrustworthy on this subject of the artificial check and its advocates.

¹¹⁶Hugh S. R. Elliot, *The Letters of John Stuart Mill*, London, 1910.

¹¹⁷Christie, *op. cit.* p. 9.

¹¹⁸Cf. above, p. 219.

published; and he died a month before the handbill was made public by the *Black Dwarf*. But he was the friend of James Mill and of Place. Only a few weeks before his death his declaration in the House of Commons that "the welfare of the working people mainly depended upon themselves" was caught up by Place as a "most important truth" and sent out, with a handbill, as a propagandist argument.¹¹⁹ One hesitates to take seriously the jocular remark of Booth, to the effect that the decrease of births in Ireland,

. . . if not allowed to be miraculous, can be accounted for only upon the supposition, that some Radical Economist has been lecturing at Portarlington on the subject of procreation . . .¹²⁰

We may but conjecture whether to count Ricardo among the conservatives like Malthus and McCulloch, or to class him with his immediate disciples as an adherent of the principle of artificial restraint.

It was by fixing their attention on the principle of utility, as James Mill had counseled them, that these serious-minded reformers arrived at the conclusions which have here been described. They judged of utility with outlook narrowed to the measure of the orthodox economics of their day: an incipient wages-fund theory which meted out destruction to the laboring class in the simple, harsh ratio of its numbers. And if, out of the experience of Place or the coarseness of Carlile, it was suggested that parenthood was obedience to natural principles as well as conformity with rules of economic demand, the result was to enlarge the concept of utility by an idea of marriage debased to the level of a segregative moral police. Once, indeed, Place indulged in a vision of a higher position of woman, irradiating society with new influence for good:¹²¹ and in due time a grosser reflection of this ideal showed in Carlile's work¹²²—all to be the result of a reduction in the number of births. But mostly utility was the simple, grim avoidance of Malthusian misery and vice.

The same narrowness of outlook failed to reveal the disad-

¹¹⁹ Letter to the editor of the *Labourer's Friend*, 12 July, 1823, Place MSS., vol. 68, Hendon.

¹²⁰ *Letter to Malthus*, p. 122.

¹²¹ Letter to Carlile, Aug. 17, 1822. Vol. 68, Hendon.

¹²² Cf. especially the Dedication of vol. xi of *The Republican*.

vantages of the restrictive plan. Place believed the aggregate of vice would be reduced. Carlile could not see that "Every Woman's Book" had opened the way for "a particle of new evil."¹²³ Save for the warning voice of the *Black Dwarf* the conviction prevailed that reduction of numbers could never be carried too far among the working classes—that is, too far to suit the needs of industry. The concentration of preventive practices in those classes where economic wants press less heavily was an anomaly hardly to be foreseen.

Apprehension of the menace of unequal increase of the different social ranks first became serious when evolutionary biology had pointed out the significance of hereditary differences in human ability. In the decade of the twenties such differences were all but unrecognized, and the selective improvement of types through stress of numbers was unknown. For Place and his contemporaries there was no fear of degeneracy, following the abatement of natural selection, as comforts increase—no thought of "race suicide" and the decline of nations which die at the top. "Laws of nature" connoted traditional prejudice. Against such laws Place championed Bentham's principle of utility as alone suited for the guidance of mankind. His argument that "Nature is a blind, dirty old toad"¹²⁴ revealed an almost dramatic unconsciousness of the coming reaction in population theory.

The morality of neo-Malthusianism, according to other than utilitarian standards, is not for discussion here. But the whole subject merits discussion more far-sighted and enlightened than it has yet received. For the history of the neo-Malthusian movement impels one to believe that beneath the manifest abuses of the radical check, and beyond the vision of most of those who have been its supporters, is the ideal of a larger result—a striving for better adjustment between the momentary exactions of economic civilization and the more fundamental conditions of the continuity of human life. The propaganda came into existence at a time when the need for such adjustment was severe. Both the proposal and the revival of artificial restraint were due to able men, overradical, perhaps, but indubitably earnest in the popular cause. In less than a hundred years—rather, indeed, in about thirty—and despite all opposition, preventive practices have diffused themselves through most of the advanced nations of the world. A

¹²³ *The Lion*, vol. ii, p. 422.

¹²⁴ Letter to Carlile, vol. 68, Hendon.

movement with such auspices and such vitality, and with consequences so mingled, good and bad, forces itself upon us as a social problem which can hardly be solved by the protestations of persons who turn their faces away from a situation they have not ventured to understand.

THE RELATION OF ORIENTAL IMMIGRATION TO THE GENERAL IMMIGRATION PROBLEM

J. ALLEN SMITH.

No part of the United States would be benefited more by a wise and satisfactory solution of the immigration problem than the Pacific Coast. Owing to its geographical position, its future growth and prosperity will depend largely upon the maintenance of friendly relations of the countries of the Orient. Moreover, the recent acquisition of the Philippine Islands has brought us into direct contact with the nations of the Far East and awakened their interest in, and directed their attention to, all matters affecting their relations to the United States. The recent industrial transformation of Japan and the successful assertion of her right to rank as a world power is enough to convince the most skeptical that the Orient is destined to play no unimportant part in the political and economic life of the future. The Western World has intruded upon the seclusion of the Chinese Empire, and its vast population is being awakened to the necessity of introducing the industrial civilization of the Occident. The full effects of this impending change in a country so densely populated and possessing natural resources so rich and varied, it may be difficult to foresee; but, that it will react in an important way upon the political and economic interests of the Western World, is beyond question.

It is highly important, not only to the Pacific Coast states, but to the entire country, that in our policy regarding immigration, we should avoid as far as possible all appearance of discrimination against Oriental nations. There is no doubt, however, that ample justification exists for the feeling prevalent on the Pacific Coast that Oriental immigration is highly undesirable. But if this end can be attained without legislation specially directed against Oriental races, the advantages of such a course are obvious. The time is approaching when Oriental nations will expect and should be accorded much the same treatment at our hands as the heretofore more favored nations of the Western World. We can hardly hope to maintain a policy of exclusion with reference to China and Japan and at the same time freely admit the immigrants of other races. A discrimination such as this, even if it did not eventually lead to political complications, might seriously inter-

fere with the development of our trans-Pacific trade. If we discriminate against the Asiatic nations in our immigration laws, we should expect, when the opportunity presents itself, to be paid back in kind. The Chinese boycott of 1905, against American goods, is some indication of the difficulties in which the continuance of this policy would probably involve us. A tenable policy—one which would not be a source of constant irritation in our foreign relations—should, in so far as possible, treat all nations alike.

But whatever may be said of the method by which we have sought to exclude Orientals, the desirability of keeping such immigration within narrow limits can hardly be questioned. This conclusion does not necessarily imply a belief on our part that the Oriental races are inferior to our own, but that they are fundamentally different, and if they were admitted in considerable numbers, it would mean a race problem of serious import. Our experience with Oriental immigration in California and Washington has been sufficient to show us that it is not the part of wisdom to pursue a policy which makes it possible for Orientals to come into this country and engage in occupations which bring them into direct competition with our own laboring population.

Our original policy, if indeed we had any distinct policy respecting immigration, was of the *laissez faire* type. Some moral encouragement was given to immigration through the humanitarian purpose to make this country a refuge for the unfortunate and the oppressed of all nations. But this sympathy for the foreigner who was seeking to better his condition, was powerfully reinforced by the self-interest of the employing classes who wanted an abundant supply of labor. The free spontaneous movement of labor to a land of larger opportunity was thus greatly accelerated through the organized effort of employers and steamship companies to make immigration a source of direct profit. The artificial stimulus thus given to immigration greatly increased the supply of unskilled labor, bringing to this country large numbers of low grade immigrants who lacked the initiative, the energy, and the means which would have made it possible for them to come before the days of cheap ocean transportation and the exploitation of immigration as a regular organized business by the great steamship companies. While something can be said in favor of a liberal attitude toward purely voluntary immigration, nothing can be urged in defense of this active encouragement of immigration for the sake of the profits which it will

bring to steamship companies and to American employers. As a partial remedy for this evil, the federal government enacted the contract labor legislation which attempted with limited success to prevent American employers from bringing in foreign laborers.

Our immigrants have heretofore come almost entirely from and still are mainly from European countries. But with the settlement of the Pacific Coast and the industrial awakening of the Orient, a new phase of the immigration problem was presented. The appearance of the Chinese coolie, with his low standard of living and his patient endurance, was an undeniable menace to the well-being of the American laborer. The same might be said, however, with reference to a good deal of the immigration even then coming into the United States through the ports of the Atlantic coast. Nevertheless, Chinese immigration was dealt with as a distinct problem, doubtless for the practical reason that any attempt to treat it as merely part of the larger problem of the general exclusion of undesirable immigrants would have made such restriction difficult if not impossible.

Still more recently the influx of Japanese awakened renewed interest in and caused more or less apprehension, especially on the part of American wage earners, as to the possibility of effective Oriental competition in the American labor market. Against this new danger, our immigration laws furnished no protection, nor would the enactment of more special legislation modeled after the Chinese exclusion acts be a satisfactory or expedient way of meeting this new difficulty. Sooner or later, we may be compelled to recognize the necessity of adopting a policy that will practically exclude immigration from all Oriental countries. But if this could be accomplished without special legislation, it would have the distinct advantage that it would avoid all appearance of discrimination against the Asiatic races and thus aid in the maintenance of friendly relations with the trans-Pacific nations.

America has been heralded all over the world as a country of high wages and abounding opportunity—a land where even the poorest classes are encouraged in the economic struggle by the prospect of bettering their condition. Whether it is to remain such much longer, will depend on our attitude toward immigration. Soon we must ask ourselves what the effects of our existing immigration policy are likely to be, and whether these are what we as a nation desire. If our present policy of admitting freely the

laboring classes of other countries is to be continued, we must expect the wage earning class here to lose any economic advantage which it may now have over the wage earners of other countries.

The immigration question, affecting as it does many diverse interests, presents a political problem for which it is no easy matter to find an acceptable solution. But, while the attitude of some classes toward immigration has been and doubtless will continue to be determined largely by considerations more or less selfish, this is not true of the nation as a whole. It is but reasonable to believe that in this matter, as in all others that vitally concern the welfare of the American people, the final solution must be in harmony with the generally accepted view of the spirit and purpose of our institutions. This, it seems, is the standard of judgment by which our immigration policy is to be approved or condemned. No policy with reference to immigration or any other matter is likely to be continued when it comes to be generally recognized that it is in conflict with the fundamental aim of our national life. Have we, as a nation, any great purpose in view, any ideal toward which we have been and are striving? What is it that we, as Americans, believe to be the distinctive feature of our civilization and wish to see perpetuated? To this question there can be but one answer. In the thought of the people generally, America has been associated with opportunity. It has been distinguished from other countries by the general diffusion and high level of well-being, the preservation of which has been, in the opinion of the people, the main object of our institutions. A prevalent belief, such as this, is a valuable national asset. It should not be jeopardized by the continuance of any policy which must inevitably have the effect of weakening the foundation upon which it rests. This, however, is just what our practically unrestricted immigration, if continued, must mean. It is obvious that the desire to enjoy the greater opportunities which this country affords is the cause of immigration, and it is equally obvious that if this immigration is allowed to continue, our advantage in this respect must disappear.

This is a question, however, which should not be settled on purely selfish grounds. While the first duty of the government is to protect its own citizens, we are under some obligation to the world at large. But the service which we can and ought to render to the people of other nations is not inconsistent with the maintenance of a high standard of living at home, even though this

may involve effective restrictions on immigration. If America is to exert a potent influence for good, if she is to elevate the standard of citizenship in other countries as well as in our own, she must guarantee to the masses of her citizens a measure of well-being that will serve as an example and a model for the more progressive nations of the world.

Moreover, our practice in the matter of immigration is directly opposed to the protective tariff policy to which we, as a nation, have long been committed. The professed, and no doubt sincere, belief of a large portion of the American people that it is the duty of the government to maintain such conditions as will ensure high wages and a high standard of living for the wage earner, has been made the chief support of our high protective tariff policy. But while maintaining protection ostensibly for the purpose of enabling American employers to pay high wages, we have freely admitted foreigners, who come in to compete for employment with American labor. We exclude foreign goods on the ground that such indirect competition of cheap foreign labor is a menace to the high standard of living of American workingmen, and at the same time, by permitting indiscriminate immigration, are defeating the end which we profess to have in view. If we really wish to safeguard the wages and the standard of living of the American workingman, the obvious, direct, and only effective way to accomplish it is to exclude all really undesirable immigrants.

It would be difficult to find any justification for a policy which attempts to exclude foreign goods or limit their importation on the ground that they are produced by cheap labor, and which at the same time permits the free importation of the laborer, whose competition is conceded to be undesirable. Inasmuch as our scheme of protection has, as its avowed object, the maintenance of high wages and general well-being for American wage earners, it would seem that our immigration laws should be revised and made to conform to this policy. In whatever light we may view it, the doctrine of protection is irreconcilably opposed to the policy of unrestricted immigration. One embodies the belief that it is the duty of this country to protect and preserve opportunity by restricting the right of foreigners to sell goods in our markets; the other, which in appearance is a concession to the humanitarian idea that American opportunity should be open to the citizens of other countries, is in effect the application of the free trade principle to the domestic labor market. If protection is to be maintained as

our national policy, its principle should be fully recognized and embodied in our immigration laws.

Looking at this matter from the standpoint of the American laboring man, no one is a desirable immigrant, who, by reason of his lower standard of living, would be willing to work for less than the prevailing rate of wages. The importation of this cheap labor is far more harmful to the laboring man and to the country at large than the importation of goods which cheap foreign labor has produced. The continuance of practically unrestricted immigration means that we must face the possibility of having reproduced here the foreign wage conditions, which, according to our theory of protection, it is desirable to exclude. That this is a real danger is sufficiently shown by the fact that in many occupations the foreign workers, with lower standards of living, have already supplanted American laborers. It cannot be said that we are any longer in need of the kind of labor which immigration chiefly supplies. The occupations which require little or no skill are already overcrowded and the continuance of immigration of this sort, by intensifying the competition for employment, must make it more difficult to maintain the American standard of wages.

Just how we should apply the remedy which the situation demands, it may be difficult to determine. Probably no one simple test would be sufficient to exclude all immigrants who are really undesirable, and no combination of tests would be adequate that did not shut out a large proportion of the immigrants who are now admitted. This may be a radical departure from our present policy, but it seems to be the only means by which it is possible to protect the standard of living of the American workingman. Such a policy, if consistently applied, would do much to relieve the strain to which unrestricted immigration is now subjecting American institutions.

POPULATION AND IMMIGRATION—DISCUSSION

JAMES BONAR: No one has covered the ground so well as Professor Field. Many of us will be glad that it is done not by ourselves but by somebody else; but we are glad to have it done.

Some popular objection seems invalid. The plan tends not to reduce population so much as to lessen infant mortality, though the result (shown by the census, etc.) has also been to lessen the increase. The Darwinian objection from the lessening of the field of selection is partly met by the lessening of infant mortality.

The movement has interest in economic history from its association with the Philosophical Radicals, identified with Ricardian economics.

It is a heresy springing from Malthus, as Marxian economics sprang from Ricardo. The latter, however, began as theory, the former is a practical expedient. It is hard to see its contribution to theory, whereas the Marxian heresy has been of distinct service in that regard.

This is not the place to discuss it ethically. What it proposes is a choice of evils; and it affects only the element of quantity or number. To most of us, quality is more important. Quality, and not simple quantity, is regarded in Professor Carver's proposals.

J. K. TOWLES: Professor Carver points out that continuous immigration will tend to increase the incomes of employers and decrease the wages of labor, particularly the wages of the lower grades of labor. Among the several main causes making for the growth of large fortunes in the United States, not the least important has been the steady supply of sturdy immigrants with low standards of life. Immigration from southern and eastern Europe is today playing somewhat the same part that bonded servants and slaves played during earlier periods. Developments in colonial America would have been much less rapid had there been no indented servants; Virginia would not have been ready for the Revolution had it not been for slavery. So, immigration has brought an extraordinary development of our natural resources, and has been one great factor making for the rapid accumulation of individual and of corporate fortunes.

Officials of the Chicago Federation of Labor have told me that the old system of obtaining immigrants under contract still exists so far as results are concerned, though, nominally, the contract labor law is observed. These officials contend that labor agents, representing certain large corporations, directly or indirectly finance the emigration from certain sections, and that these immigrants upon landing at Ellis Island know their destination or know that this will be arranged for them. This charge is given more than a semblance of truth when we read in the report of the National Immigration Commission recently submitted to Congress: "It is clear that there is a large induced immigration due to labor agents in this country, who, independently or in coöperation with agents in Europe, operate practically without restriction." (p. 21)

It is not probable that a systematic scheme of restriction will be inaugurated in the near future. Aside from the difficulty of determining upon what basis, what principle, the restriction is to be made the enactment of such legislation would be difficult. (1) The men who direct industrial affairs, and hence have a large part in directing political affairs, clearly recognize the relation existing in certain industries between low-waged immigrants and high dividend payments. (2) The skilled workers are not directly affected and therefore are not actively interested. I venture to say, in passing, that the skilled workers are more affected than they realize. (3) The unskilled laborers lack initiative and organization to press their interests. (4) Racial differences, except in the case of Orientals, are not such as actively to concern the general public.

A prevalent statement is to the effect that immigration of low-wage immigrants forces up the native workers to a higher economic level. The competition of immigrants does often cause a change of occupation on the part of native workers, but a new position does not necessarily mean a better one. A large number of mill workers have been forced out of the factories and have gone into store and office work and other employments. In many instances their wage in their new occupation is lower than it would have been had they remained in the factories and been able to support their wage demands by collective bargaining.

As Professor Smith has well said, it is surely high time for our employers to realize the humor of the situation when they beg for a high tariff to protect the American workmen from the pauper

labor of Europe and then hasten to bring over this labor to compete directly with the native workers.

Again, unrestricted immigration may prevent industrial conditions in south European countries from rising above the emigrating point. It might be well for the foreign workers that this country cease to be a safety valve for the social unrest of Europe. Then, perhaps, conditions in south Europe after getting worse might become very much better.

Professr Carver argues that if immigrants go in large numbers into agriculture it will probably result in the development of a class of landed proprietors and of a landless agricultural proletariat. A large number of immigrants have not in the past entered agriculture. Nor has there been any marked tendency toward concentration in farm ownership. The number of farms has increased faster than the population, and but a small proportion of farm owners own more than one farm. But because this was true for the years 1880 to 1900, the condition will not necessarily hold true for the future; land values are changing and the tenure of land may be expected to change accordingly.

As regards our attitude on the immigration question, I venture the suggestion that in our deciding moments our action will be determined not so much by economic considerations as by our answer to the question: Do we want to develop an American race? I know there are technical objections to the term "race", used in this sense. As Professor Emery says, though in another connection, our action will depend upon "how we feel about it." Is the development and maintenance of an American people, an American race, a matter of vital concern to us? Many sane and sage men think it is high time we were concerning ourselves with the breed of our people.

H. A. MILLIS: What I have to say is explained by Dr. Neill's absence and by the fact that I have recently been employed by the Immigration Commission as agent in charge of its investigations conducted in the West. Dr. Neill was a member of the Immigration Commission which has recently completed its work and submitted its results to Congress. I had hoped he would be present to say something concerning the broad scope of the investigations and the conclusions arrived at. In his absence I may say that the Commission has investigated most of the phases of our immigration problem, that the facts uncovered

are significant, and that the many reports submitted to Congress will comprise some forty volumes. As yet little has been published save a brief statement of conclusions and recommendations.

From the point of view of present legislative needs, we have in a general way three immigration problems. The first of these is connected with the immigration of large numbers of European laborers, chiefly to eastern industrial centers. The problem there is to maintain the basis for a high standard of living and for a progressive social life. The second is connected with the immigration of eastern Asiatics to the Pacific Coast and neighboring states. The problem there is to maintain labor conditions unimpaired, avoid the conflict between races due to the fact that this immigration involves a race problem, and to keep the field clear for an influx of natives and European whites to settle the country and to develop it along lines normal for the United States. The third problem is connected with the situation in the Hawaiian Islands where the great mass of the laborers and a large percentage of the small farmers and shop keepers are Asiatics. The problem there is to induce a large immigration of Europeans and of native Americans in order to undo what has been done and to "Americanize" the Islands.

Within the last twenty-five years our immigration from Europe has increased enormously and changed radically in character and motive, while the capacity of this country to absorb immigrants has in some respects diminished. Previous to 1883 most of our immigrants came from northern Europe; now more than 70 per cent of the immigrants from that quarter come from the states to the south and east. Italy, and chiefly the southern provinces, Austria-Hungary, and Russia each send us more immigrants than the United Kingdom, France, Germany, Belgium, the Netherlands, Scandinavia, and Switzerland combined. With this change in races has come a change in the object of their immigration. Formerly the great majority came as settlers; at present the great majority come as migratory laborers, and, though the larger number later decide to remain here, more than 40 per cent return to their native land, 30 per cent to remain there permanently. Except for a part of the immigration from Russia and Turkey, this movement from Europe is not forced by oppression. With comparatively few exceptions these immigrants come to earn higher wages, or are induced by agents of

various kinds; they are not fleeing from intolerable conditions at home.

The newer European immigration is of such character that it finds employment chiefly in unskilled labor in industrial centers. There, by force of numbers, superior competitive ability due to a low standard of living, organization into "gangs" and capacity for migration, and their rather disastrous effect upon trade unions, they have prevented a desirable improvement in the conditions of the lower ranks of labor. The unskilled labor market has become thoroughly saturated. Of course, there have been accompanying evils, such as colony life, slow assimilation, etc. Because of this situation, the following occupies a central position in the findings and recommendations of the Immigration Commission:

"The investigations of the Commission show an oversupply of unskilled labor in basic industries to an extent which indicates an oversupply of unskilled labor in the industries of the country as a whole, and therefore demands legislation which will at the present time restrict the further admission of such unskilled labor.

It is desirable in making the restriction that—

(a) A sufficient number be debarred to produce a marked effect upon the present supply of unskilled labor.

(b) As far as possible, the aliens excluded should be those who come to this country with no intention to become American citizens or even to maintain a permanent residence here, but merely to save enough, by the adoption, if necessary, of low standards of living, to return permanently to their home country. Such persons are usually men unaccompanied by wives or children.

(c) As far as possible the aliens excluded should also be those who, by reason of their personal qualities or habits, would least readily be assimilated or would make the least desirable citizens."

Of course the Commission recognizes that the expansion of industry has been much more rapid than it would otherwise have been, because of this rapid influx of laborers, and that as a result of this expansion many native workmen have been able to rise to higher positions than they could have commanded in the absence of such an expansion. The Commission maintains, however, that "the development of business may be brought about by means which lower the standard of living of the wage earners. A slow expansion of industry which would permit the adaptation and assimilation of the incoming labor supply is preferable to a very rapid industrial expansion which results in the immigration of laborers of low stand-

ards and efficiency, who imperil the American standard of wages and conditions of employment."

In these recommendations the Immigration Commission shifts the emphasis and takes somewhat new ground with regard to a large immigration of European laborers. With regard to any further restriction of immigration than is now in effect, however, it goes no farther than to enumerate various methods which have been suggested with that object in view, and to state that a majority of its members "favor the reading and writing test as the most feasible single method of restricting undesirable immigration." It may be predicted that within the next twenty-five years our general immigration legislation will not be such as to reduce the influx of unskilled laborers to small proportions.

With regard to the immigration of eastern Asiatic laborers on the other hand, the Commission has taken the ground that because of numerous facts well known to all, and still others brought to light by the investigation recently carried on, and which are set forth in detail in the reports submitted to Congress, it is undesirable, and makes these specific recommendations:

"The general policy adopted by Congress in 1882 of excluding Chinese laborers should be continued.

The question of Japanese and Korean immigration should be permitted to stand without further legislation so long as the present method of restriction proves to be effective.

An understanding should be reached with the British government whereby East Indian laborers would be effectively prevented from coming to the United States."

Except for that which concerns the East Indians, no change of our present policy is required in order to carry out these recommendations made by the Commission. The Chinese have been more or less effectively excluded since 1882, and there can be no doubt that their numbers in the western states have materially diminished within the last ten years. So also has the number of Japanese and Koreans in the western states diminished slightly during the last two years until they now number between 90,000 and 95,000. In 1907 Japan agreed in the future to refuse passports to her subjects who were laborers, except such as were returning to the United States to resume a former residence, such as were dependents of persons already domiciled in the United States, or such as were already possessed of an interest in land to

be used for agricultural purposes. This rule has more recently been applied to the Hawaiian Islands, while emigration from Japan to Canada and Mexico has been narrowly limited. This action of the Japanese government, together with the order issued by the President forbidding the indirect immigration of Japanese and Koreans, chiefly from the Hawaiian Islands, has given the western states the best possible protection against the further immigration of the laborers of those races. There can be no doubt that the Japanese government has acted in good faith, and that the restriction is effective. The only question is as to how long Japan can enforce her present rules when under her constitution all subjects are presumed to enjoy the same rights—a point being made much of by powerful interests in that country.

The Commission makes its recommendation concerning the East Indians because the laborers of that race are considered as undesirable from every point of view. It is desired that our government should request Great Britain to do for us what she has done for Canada in this matter. The direct immigration of Hindus to this country—which fortunately has not yet reached large proportions—began when they were effectively excluded from British Columbia.

The situation is now such that restriction of the immigration of Asiatic laborers to the point of exclusion must be regarded as the proper public policy. Any change from the policy recommended by the Commission would merely aggravate the situation. It may be that later, as suggested by Professor Smith, the immigration of all races will have to be controlled by the same general law. That, however, is a matter of the future and not of controlling importance in determining the proper policy for our government to pursue at the present time.

ISAAC A. HOURWICH: The argument in favor of restricting immigration proceeds from the tacit assumption that immigration outruns the opportunities for employment. This assumption is merely a modern version of the old Malthusian theory and is absolutely unsupported by facts.

Let us have a glance at the growth of production in the United States.

The production of coal in the United States trebled from 1890 to 1907. Such rapid growth cannot be accounted for by household consumption. Coal is the foundation of modern industry.

The increased consumption of coal indicates a corresponding increase in the consumption of steam; in other words, it indicates that the whole American industry has grown in proportion. Statistics of the production of iron and steel, copper, lead, and other basic products likewise bear witness to an industrial expansion far in excess of the growth of population in the United States. All of which goes to show that immigration increased in response to an increased demand for labor.

The argument that the immigrant laborer who is accustomed to a lower standard of living at home is satisfied with lower wages in the United States is likewise unsupported by facts. The Polish peasant may have lived in a straw thatched cabin at home, but in Chicago he can find no such cabin for rent, because it does not pay the owner of a city lot to maintain such a rookery. If you compare the rent paid by a Jewish workman for a small flat on the lower East Side of New York with the rent paid by a native workman in a small New England town for a detached cottage, you will discover that the Jewish workman must spend more for rent. So when the article produced by Jewish labor in New York must meet in the American market the competition of the article produced by native American labor in a small New England town, it is an open question whether Jewish labor is underbidding native American labor, or on the contrary the native-born American workman is underbidding the immigrant. The American laborer is better housed, to be sure, but it is the rent paid, not the comfort enjoyed, that affects the rate of wages through competition. Let us next take clothing. At home the Lithuanian peasant may have walked barefooted, but when he comes to work in the mines of Pennsylvania he must wear shoes, for which he must pay an American price. The prices which the alien workman pays in an American department store for his clothes are fixed, not by the immigrant himself, who is accustomed to a lower standard of living, but by the American manufacturer, by the American railway manager, by the American landlord, every one of them a true American, eager to make an American profit, in order to maintain an American standard of living. The immigrant cannot continue in America to lead the "simple life" to which he was accustomed at home. Willy-nilly he must from the date of his arrival adapt himself to the American standard of living, because the European standard of living is here simply impracticable. He must pay American prices for everything he consumes and he

is accordingly forced to demand American wages. His wages are not determined by his individual psychology, but by the economic structure of American social life.

It is remarkable that the clamor for restriction of immigration is loudest in California, where the average density of population is only fifteen persons per square mile. California is very largely an agricultural state. Let us take the state of Iowa as a standard for comparison. The population of Iowa has ceased to grow only after reaching an average density of forty per square mile. If we assume, for the sake of the argument, the latter density to be the maximum limit for an agricultural population with the present methods of agriculture (which would certainly be an arbitrary assumption), California could add four millions to her present population before she would reach the density of Iowa. The state of Washington has about the same density as California, while in Oregon the density is one-half less. What justification is there for this outcry against immigration, unless we are eager to emulate Australia, which has barely managed to raise a population of six millions on a continent of about the size of Europe?

CARL KELSEY: I rise merely to put myself on record as believing that the case against the recent immigrants and those likely to come in the near future is not yet closed. It seems to me a paradox to say in the words of a late senator, that "our ancestors fell first on their own knees, and then on the aborigines," and prevailed because they were superior; and then to claim that the so-called inferior peoples will now overcome us. Professor Carver has expressed a fear lest immigration should lead to high priced land and low priced labor. It is worth while to notice that at the present time, wherever prices are not affected by city or industrial influence, that high land and high cost of labor go together while in other sections cheap land and cheap labor are found. If the immigrants now coming are not inferior—and I do not believe that this can be disproved—they will become as competent producers as any others, and their standard of life must rise. The Italian immigrants who in recent years have accumulated \$90,000,000 of property in New York City alone compare very favorably with any group. I think that immigration is a problem, a problem that affects many of our social institutions. It calls for careful study, and, as a student, I am still skeptical of many popular verdicts.

B. H. HIBBARD: No doubt Professor Carver is right so far as the general case is concerned, that is, taking a comprehensive view of the whole immigration question, embracing every sort of immigrant and over a long period of years. But are we not sometimes justified in taking a limited view? It might happen that the introduction of great numbers of southern European laborers into our agricultural districts would all but inevitably result in either an agricultural proletariat or in the undue subdivision of land, but it does not follow that the introduction of a considerable number of immigrants such as might come from Germany, Norway, Sweden, Denmark, or Great Britain would necessarily tend in either of these two directions. At present there are few coming from these countries; the feeling is widespread that the time to come to America to make a start in farming is past. Certain governments, notably the German, spare no pains to keep their people from leaving the homeland. "There is room and work in Germany for all," is a sentiment taught in the public schools of Germany. As a matter of fact a German laborer can easily double his net income, and increase his chances of becoming an independent farmer many fold by emigrating to this country. In England the tendency is toward other parts of the Empire rather than toward this country.

Looking about us at home we see any number of farmers perplexed and hampered by the lack of farm laborers and the unreliability of what is available, and this on a farm adapted to the needs of one family, but which for some reason cannot be operated by the family alone. A vast number of the young men reared on American farms have a taste for some other calling, and a stream of them is going to the cities. Many who remain on the farms do so with so little heart that they need the example and competition of the painstaking foreigner to bring them to high efficiency.

The introduction of the "blanket men" as found in the West; the Orientals, who thin beets, or any other class who take a distinctively subordinate place, can result only in one or the other of the undesirable outcomes suggested above, since these men lack the instincts or the ability to acquire a farm; but the German or the Norweigan makes, in the first place, an admirable self-respecting hired man, and, in the second place, is almost certain to become the owner of a farm for himself before middle life. Is it not probable that in doing so he, instead of crowding a land-owning farmer off the land, takes the place of a tenant

who is renting from the man discouraged over hired help, or from the banker or business man to whom the farm on this account has been sold?

What American agriculture needs is a class of men who like to work the soil, and, since there appears to be not enough of that sort of men here yet, it would seem desirable from every point of view to encourage the class of immigrants out of whom efficient farm laborers can be made at once, and independent farm owners eventually. It is more important that the farms of America be owned and operated by the same men than that we develop a class having so-called American ancestry.

R. B. BRINSMADE: The noted English author, Mr. H. G. Wells, when he came to this country in 1905, was surprised at our industrial activity and at our ability to absorb a vast foreign immigration without a marked reduction in our wage rate. If his visit had been delayed until this year, I think that his impression would have been different, for our recent great rise of prices is acknowledged to be equivalent to a marked reduction in general wages. Wages have kept pace with prices only in certain select occupations where strong trade-unions, or other forces on the side of labor, have compelled employers to share the increase in the receipts for their output.

First, I want to disagree sharply with the last speaker, who stated that high wages accompany high land values and low wages accompany low land values. Not only does his statement differ from the ideas of Ricardo and Henry George on the subject, but my own observations in various parts of the world have convinced me that the last two authors are right in this matter. New York City has the highest land value in this country and also one of the lowest wage rates for common labor, considering its cost of living; while in the Rocky Mountain states, with cheap land, we have the highest wage rate. It is true that we find low priced farm lands in New York State, but this is due to sterility or unfavorable soil for raising profitably marketable products and has no connection with the wage rate. Such land is near the margin of cultivation, and, having little surplus product over the prevailing wages for working, it has naturally little or no capitalized rent or land value.

It seems to me that we should consider immigration problems more with reference to our laws governing the distribution of

wealth than have the previous speakers. If our present laws give a small exploiting class of monopolists an unfair advantage in the wage contract, by which they can keep laborers from utilizing our natural resources except with its permission, it is evident that the larger the helpless laboring class the easier it will be for them to have it at their mercy; but would not that be equally true if the number of laborers arose from our natural increase instead of immigration?

We cannot then separate the economic phase of immigration from its political problem. The more ignorant voters we have amongst us the easier it is for our shrewd monopolist class to make laws in its own interest. This is evidenced in New Mexico, where two thirds of the voters are Spanish Mexicans too ignorant to have any idea of the effect of government on their economic status as wage earners. In consequence of this, the recent Constitutional Convention produced a document which, according to Mr. Ferguson, the leader of the Democratic delegation, was planned with the object of enslaving the state for the next twenty-five years to the railroads and their allied monopolistic interests.

Considering then the admission of healthy, able-bodied immigrants alone, as our present law provides, I can see no reason why their entrance should be necessarily a menace to our standard of living, but a vote should not be given them until they are sufficiently informed of their own political interests to use it with discretion. Exclusion on racial lines is another problem, more social than economic.

Our natural resources would easily support in affluence the population of China and more, hence do not let us blame our immigration for the exploitation of our laboring class, which is due to wealth distributive laws in the interest of forestallers and monopolists rather than of workers and producers.

T. N. CARVER: I have just heard at a meeting of the American Statistical Association the report that the census of 1910 shows that the large farms, as well as the small farms, are tending to disappear, but the middle sized farms are increasing. Now a middle sized farm, according to American standards, is a one-family farm—that is, a farm run on the average by the labor of one family, though there is an occasional hired man. One reason why the large farms disappear is because of the difficulty of

finding farm labor. The man who is farming on a scale so large that he must depend mainly upon hired labor is really at a disadvantage as compared with the man whose farm can be handled with his own labor. Of course this labor should be equipped, and is as a matter of fact equipped, with better teams, tools, and machinery. Now this concentration of our agriculture in the middle group of farms—that is, the one-family farms—I hold to be a desirable thing.

If scarcity of farm labor is what puts the bonanza farm at a disadvantage as compared with the middle sized farm, an abundance of farm labor would obviously have the opposite effect and tend to give the bonanza farmer a better chance than he now has. That, I should contend, would be a bad thing for American agriculture. Doubtless, as Professor Hibbard says, there is room for a few more immigrants of the right sort, to supply the occasional farm hand needed on the one-family farm, but there is nothing in any restrictive measure now proposed which would tend in any way to shut out that type of immigrant. The Scandinavian or the German immigrant who came a generation ago and began as a farm hand and gradually worked up to be a farm owner has quit coming, or practically so. I think it is because he feels the pressure of immigrants of a lower standard of living. That is to say, a Norwegian, an Englishman, a Scotchman, a Swede, or a German is probably about as well off today in his own country as he is in America. In his own country he has to meet the competition of his own countrymen, but when he comes to America he has to meet the competition of the Italians, the Hungarians, and the Poles. A reasonable restriction upon immigration—the application, say, of an educational test—would probably encourage these immigrants from Northern Europe by shutting out some of those from Southern Europe.

Now it is easy to say that there is an abundance of farm land in this country yet. You can undoubtedly find statistics showing that there are thousands of acres in California, Texas, New Mexico, and various other places, which are still unpeopled; but anyone who has traveled over those regions will be prepared to believe that there is as much overcrowding in New Mexico as there is on the East Side in New York—overcrowding in a real economic sense. One person to the square mile is overcrowding if it takes two square miles to make a living. It is a well known fact that the "congested districts" in Ireland are the most sparsely

populated parts of the island. The facts which are really significant as to overcrowding are the figures relating to the unemployed. If there are more people than can get jobs there is overcrowding, no matter how much free land there is that can be had for the asking.

LEAD POISONING IN ILLINOIS

ALICE HAMILTON

The Illinois Commission on Occupational Diseases which began work last March has devoted the nine months of its existence to a study of the poisonous trades in which the workers are exposed to the effects of lead, arsenic, brass, zinc, carbon monoxide, turpentine and its substitutes, acetone, amyl acetate, wood alcohol, etc.; naphtha, cyanide of potash, nitrate of silver, chromate of potash, hydrofluoric acid. We chose the poisonous trades because of their importance and because of the clear connection which can be made between trades and diseases, far clearer than in the dusty trades, or those with heat, cold, or humidity, or those in which there is excessive fatigue. None of these last trades has been touched upon.

The investigation into the lead trades in Illinois made by the Commission on Occupational Diseases has covered 28 trades in which lead poisoning may occur. Cases of lead poisoning have been found in all these trades. Five hundred and sixty-eight individual cases have been discovered from the records of the past three years and information has been gathered from foremen in the establishments visited and from physicians which points to a much larger figure than that. Six factories alone are said to yield yearly no less than 380 cases. These figures could not be included in our list of individual cases, although we realize that they represent much more nearly the actual numbers. It is necessarily only a small fraction of the victims of lead poisoning whose names and addresses can be procured, for the majority of physicians keep no records of their patients. Some do not even attempt to keep the names if these are foreign and hard to catch.

The number of cases in the year 1910 is very much larger than the number for either of the two preceding years, 304 out of 568, but this is not to be interpreted as an increase of lead poisoning during 1910. It is explained by the fact that the recent cases were much easier to discover than former cases. Men presented themselves for examination who were at the time suffering from lead poisoning, and in the investigation of shops such cases could also be detected, but a past history of lead poisoning was much harder to obtain. Many men who become leaded, especially if they are unskilled workmen, give up the trade at once, following

a doctor's advice, and these cases are seldom heard from afterwards. There are very few women on our list, only 18 out of a total of 568, and the fact that the lead trades in this state employ very small numbers of women is a great advantage, for women are notoriously more susceptible to this form of poisoning than men are.

It would be too long a list if I should undertake to tell you all the trades in which we discovered that lead poisoning might and does occur, but you may be interested in hearing of a few of the more unusual ones. We found individuals suffering from lead poisoning contracted in the following occupations: making wall paper, rolling and unrolling wall paper, finishing handles for coffins, polishing cut glass, repairing storage batteries, wrapping cigars in tin-foil, working in brass foundries, enameling bath tubs, laying electric cables underground. Two men poisoned themselves by holding lead covered nails in their mouths while shingling roofs.

In looking over our records of cases certain industries stand out as especially dangerous, productive of much lead poisoning. These are the white lead industry, lead smelting and refining, the making of storage batteries, of dry colors and paints, and the painting trade. Out of the 304 cases of lead poisoning known to have occurred during 1910, all but 62 belonged to these five trades. We studied carefully the methods of work in these industries and the condition under which the work is done, and came to the conclusion that all these trades must be considered inherently dangerous as carried on in this country, but that all could be made far safer than they are without any radical change in method. That is, there are processes in use in America which are in themselves dangerous and expose the workmen to lead poisoning, and these dangers could be eliminated only by a change in method. But on the other hand there are quite unnecessary dangers, due not to the method used, but only to carelessness, to lack of thought.

The lead smelting industry is a case in point. As carried on in America it is a far more dangerous trade than in Europe, and nothing but a change of method could make any of our plants as safe as a German lead smelting works. Unfortunately, however, the American lead smelter—he is usually a newly arrived Slav, Greek, or Italian—is not only exposed to risks which he would escape in Germany, but he is not nearly as well cared for as he would be there. Our methods compel a man to work in an atmos-

phere of lead dust and fumes which foreign methods have done away with, and our workmen are often completely neglected, while the foreign workman is cared for under a doctor's supervision.

We have evidence that there is much lead poisoning among the lead smelters in Illinois; 181 cases have been found to have occurred during the last three years, and, from the statements of physicians, managers, and foremen, it is evident that many cases remain undiscovered because the unskilled foreigners leave the work as soon as they begin to suffer from the effects of the poisoning, and are, consequently, never heard of. Thirty-one physicians practicing among lead smelters have told us that they consider this a very dangerous trade, and that probably all of the men engaged in the dustiest parts or where the fumes are greatest become leaded after a few months. Eleven physicians have stated that they see a total of 270 cases a year among the workers in the three largest smelting plants. Some of these undoubtedly are duplicate cases, but there are many other physicians practicing among these people who were not interviewed. It would be better if the dangerous processes could be given up altogether, but without demanding anything so radical we could still insist on improvements which would make them far safer. The six lead smelting works united have a pay roll of about 1190 men, all but 145 of them being employed by the three largest plants. But according to the most conservative statements of the foremen there are at least 4000 men employed in these three works in the course of the year, owing to the continually changing working force.

The making of storage batteries as done in our state is much more dangerous than the same trade in England. Illinois has no large storage battery works, but many small places which either make or assemble or repair storage battery plates. This trade is everywhere recognized as dangerous, and it is not possible to make a storage battery factory entirely safe, although the evils could be greatly reduced in the eleven places which we visited, by the adoption of methods which have been thoroughly tested and found successful. None of the factories visited was found to be using all possible precautions to protect the men; some of them were very bad, especially smaller places, doing repairs. Some of the most rapidly developing and severe cases of lead poisoning on our list have been contracted in making storage batteries, and what adds to the danger to the workmen is that

they are usually ignorant of the fact that they are handling poisonous lead compounds. One newly arrived Russian Jew was set to working with the red lead paste and used to moisten his fingers in his mouth as he worked because he had never been told that the stuff was dangerous. He was seriously leaded at the end of ten days.

A striking contrast can be made between this trade here and in England. At the Hart Accumulator Works in London, employing over 100 men, not one case of lead poisoning occurred last year. One small plant in Chicago, where old batteries are recharged and repaired, sent two cases to hospitals in nine months' time, although it employs only fifteen men.

The white lead industry in Illinois has improved more than any other lead trade during recent times. Three of our four factories are new and very well constructed, and in all but one of the four there is a strong effort being made to do away with some of the more dangerous features and to make the work as safe as possible under American conditions. The managers are also beginning to see the necessity of personal supervision of their men, and we bid fair to have soon in our Illinois plants a system of hygienic control very nearly approaching that which is in force now in England, including regular medical inspection of the men, only here it will have been voluntarily adopted by the managers of all but one factory.

That the methods used over here are far more dangerous than those used in Europe and England, and that our men have suffered from lack of this personal supervision, can be shown by statistics. The four factories together employ about 420 men. We have found 155 individual cases which have developed in these places during the last three years. Thirteen physicians say that they have had 187 cases a year. Undoubtedly some of these cases are duplicated but undoubtedly also many leaded men visit physicians whom we did not interview.

Here are a few comparative figures: Cookson White Lead Works in Newcastle on Tyne, a model English factory, employs 182 men. Careful individual medical inspection of the men failed to show one case last year. A model Illinois factory employs through the year about 200 men. Medical examination of the men who complained or seemed ill revealed 25 cases of poisoning last year. Locke-Lancaster's White Lead Works in London employs 92 men. They did not have a case of lead poisoning

for five successive years. In an Illinois factory, with a slightly larger pay roll, 28 per cent of all the employees have been leaded.

As I said a moment ago, there are great improvements now in course of introduction in the white lead industry, and their effect will certainly be shown during the coming year by a fall in the number of lead poisoned workmen. Nevertheless, as long as American methods of manufacture remain what they are, there will be dangerous processes in this trade and the need of great vigilance to prevent poisoning.

Our paint and dry color houses, where dry lead colors are produced and handled, have also an unnecessarily large amount of lead poisoning; and this is not due to difference in method but solely to neglect, as is shown by the contrast between two of them. I have two factories in mind, both new, well constructed, admirable externally. They employ about an equal number of men. We have not, during the nine months of our inquiry, traced a single case of lead poisoning to the first of these. We have found eleven cases which belong to the second. This is an illustration of the results of leaving all such matters to the good will of the employer, for I can find no other cause for this difference except the care given the men in one place and the neglect in the other.

The painting trade is another in which American methods are far more dangerous than those in use in England, France, Germany, and the Low Countries. Numerically it is our most important lead trade. There are 20,000 union painters in Illinois, and the union officials estimate about half as many non-union men. Thirty per cent of all the individual cases of lead poisoning for 1910 are painters, but as most of these came from the union books we feel sure they represent only a small fraction of the real numbers. The most dangerous part of the work is done largely by non-union painters, many of them unskilled and ignorant of the dangers of the work. The painter acquires lead poisoning not through the skin, as is commonly believed, but through eating lead-smeared food or chewing lead-smeared tobacco, or breathing dry lead dust. The first evil he can avoid by a careful washing before eating, provided there is any place for him to wash. House and sign painters often have the choice between a lunch eaten with paint smeared hands and no lunch at all.

The second danger to which the painter is exposed is the dust-laden atmosphere caused by mixing dry white or yellow lead with paint or putty, which work is done by very few painters,

and by sandpapering coats of lead paint after they are dried. This last is recognized by all skilled painters as the most dangerous work the painter has to do, against which he cannot protect himself; so that, although the painters themselves may be held responsible for the lead poisoning which comes from handling food and tobacco with unwashed hands, they cannot be held responsible for the far larger number of cases which result from this dry rubbing-down process, carried on, as it usually is, inside closed rooms with no system of ventilation to remove the dust. Very rapid and severe forms of lead poisoning occur as a result of this work. Three cases were recently found in one railway shop, all of which had developed after only four weeks' work. One was a newly arrived Italian; he was not a painter by trade, and when he was put to sandpapering the ceilings of sleeping cars, he had no idea of the dangers of the work. This sort of work, done in factories, employs large numbers of non-union painters. It is often said that painters cannot be protected unless we abolish the use of white lead paint, as they are doing in France. At the International Congress in Brussels this year, I heard that question discussed, and the English and German hygienists were against so radical a measure as that, holding rather that white lead paints should be used for exterior work but be forbidden in interior work, where zinc white serves just as well. But even with the use of white lead paint, it is still possible to protect the painter better than we do now. In Germany the contractor is obliged to provide a warm room in which his painters may wash, change their clothes, and eat lunch—this, even if the work done is in the country or on the edge of the city. In Germany and Belgium no lead paint may be rubbed or sandpapered while dry. Water must be used. In England this method is said to be universally employed, even on the finest carriages and automobiles. I do not know why it is considered impossible in these industries in America.

Leaving the dangerous lead trades, we find a number of trades in which lead is used which should not be productive of lead poisoning, which might be practically safe, but which, in Illinois, do yield a certain number of victims. These are the trades, very important as far as numbers go, in which metallic lead is melted and cast, rolled, drawn out into tubes, cables, wires, etc. The printing trade is included here, the metal and junk shops, the plumbers' trade, the brass foundries, where some lead is always

used, the making of "novelties", of car-seals, coffin handles and ornaments, tin-foil, and a number of objects which have more or less metallic lead about them.

The dangers in this sort of work are easy to avoid, for they consist in fumes from the melting pot which can be carried off by proper suction fans, and dust from old lead or dross which can be eliminated by simple cleanliness. The 54 cases of lead poisoning which we found in these trades were probably all entirely avoidable. The printing trade is a striking example of a lead trade which is notoriously unhealthful and needlessly so. It is carried on usually under wretched sanitary conditions, with insufficient provisions for carrying off fumes and accumulation of lead dust on floors, walls, and machinery. The impression gained by our investigators was that the conditions in a printing establishment depended solely upon the will of the manager, for sometimes the best conditions were found in small, inexpensive places, and some of the worst were in large newspaper houses. It would be a comparatively simple thing to make the printing trade as safe as most other indoor occupations, for it requires only provision for protecting the workman against fumes and dust, and providing him with facilities for washing before he leaves work. As it is, the printers apparently suffer a great deal from chronic lead poisoning. Only 31, possibly 35, cases of the acute form were found in 1910 in Chicago, but the death records of the union show that there is an abnormally high death rate from diseases which may come from the changes brought about by the slow absorption of lead, such as apoplexy, heart disease, and kidney diseases.

We were agreeably disappointed in our study of certain industries usually regarded as more or less dangerous lead trades, such as the plumbers' trade and the making of plumbers' supplies, rubber, glass, pottery, enamels, and tinware for kitchen utensils. In Illinois these are not dangerous lead trades. According to the most authoritative evidence we could obtain, lead is not used in this state in the making of glass, while most of the glaze for pottery, bricks, and tiles, the enamel for signs, and the enamel for kitchen utensils, are all free from lead. Cheap kitchen tinware is said to consist of sheet iron or steel with an exceedingly thin coat of pure tin. Sulphate of lead is used for rubber, instead of white lead. The plumbers' trade is changing from a lead to an iron and brass trade. This is true of the plumbers' trade

everywhere, but the other industries are very important lead trades in some states and expose many workmen to the dangers of lead poisoning. Indeed Illinois is not nearly so important a lead state as some of the eastern states with their manufactures, or some of the western states with their lead smelting.

It is gratifying to note that the evils in the lead trades tend to grow less instead of greater, because machinery is everywhere being introduced and displacing hand work. As the demand for lead increases, there is more care taken against waste, which means that in well managed establishments the fumes from smelting and refining lead are collected, as well as the dust from grinding and sifting. All this tends to diminish the danger of the workmen. There is practically unanimous testimony from the employees in the lead trades as to this steady improvement in conditions.

Unfortunately, the advance of methods of work has not been paralleled by an improvement in the care of the men. This is very imperfect in all the lead trades and in some there are apparently no measures taken to protect the men against poisoning. It is in consequence, perhaps, of this very general indifference to the welfare of the employees that we find the dangerous lead trades in bad repute with the working class; and, as the employers themselves declare, only the most ignorant and helpless foreigners seek employment in these industries. There are exceptions in the case of certain well paid, skilled departments, but for the most part the lead workers are poorly paid, non-English-speaking foreigners or negroes, who tend to drift in and out of these factories. We found one place, for instance, where 50 men are employed yearly, though the number needed is only 13. Another place must employ 300 men a year, in order to keep up a force of 50. Still another with a pay roll of between 450 and 600 loses from 20 to 40 per cent of its working force every pay day. As it is only with a steady force of workmen that any real shop discipline can be maintained, with men trained to protect themselves against the dangers of the trade, it follows that this shifting of men from place to place is productive of much more poisoning than would occur in a permanent force of men. There are indications that some of the larger establishments, notably the white lead works, are beginning to recognize the economic waste of this form of labor, and several are planning reforms which will result in protection for the men against lead poisoning.

NEURASTHENIA AMONG GARMENT WORKERS

SIDNEY I. SCHWAB

In attempting to present a medical problem to an audience presumably uninformed concerning the technical aspects of disease, the physician is confronted with at least two important difficulties. One of them has reference to the uncertainty of medical terminology, another has reference to the uncertainty in regard to the etiological significance of factors in the life and surroundings of an individual who later becomes the subject of disease. The latter difficulty has particular reference to the fact that the sort of disease which this paper attempts to treat is largely personal in its nature, development, and final outcome; and that the reaction of any individual to causes which work upon a large body of people cannot be accepted as carrying with it any large aspect of the total truth.

With the limitation implied in the foregoing, the reader will attempt to present to you as simply as possible certain deductions in respect to the prevalence of neurasthenia among the garment workers of this city. No attempt at present will be made to use detailed statistical proof, nor will the analysis of the whole material be given, but general conclusions derived from a study of 7000 workers in garment trades studied in the last ten years at the Jewish Dispensary in this city will be placed before you for consideration. This dispensary has an annual attendance of about 25,000 sick, of which from 5 to 10 per cent come in one way or another to the nervous department. Of these about 40 per cent of the males are garment workers and about 3 to 4 per cent of the women. This percentage of women would be much larger but for the reason that all married women have been excluded from this study on account of the additional tendency towards the development of neurasthenia which married life, numerous children, added responsibility, bad surroundings, and other factors of this sort carry with it.

The nationality of this class is almost wholly Russian Jewish. About 92 per cent belong to the Russian or Polish Jews, with a scattering of the various countries of Southeastern Europe—Bulgarians, Lithuanians, Gallicians, etc. To sum up, then, this is a study of 7000 nervously sick individuals whose chief employ-

ment is in the garment trades, mostly as factory hands in the clothing, cloak, and skirt making industries. On account of the lack of statistical analysis for which further study is essential, this paper cannot be looked upon as a contribution to industrial disease, but merely as a preliminary survey of the field.

Neurasthenia is a term devised many years ago by Beard, an American physician, to describe a condition of the nervous system which appeared to him to be peculiar to Americans. Nerve weakness is what he implied by its use; its cause, according to him, lay in habits and surroundings which, owing to his insular views, were typical of the American civilization in which he lived. Overwork, alcoholism, worry, intense application, overeating, etc., were the important factors in causing this disease.

The term neurasthenia, like many others that have come to be a permanent part of our vocabulary, was too convenient to be dropped after it was found that other countries and other civilizations had the same kind of clinical entity without just the same kind of productive factors at work.

With the tremendous development of our knowledge and interest in the functional diseases of the nervous system, the clinical picture to which neurasthenia has been applied became much narrowed, and now it is a fairly well understood and rather sharply limited disease, at least among neurologists. Neurasthenia is first of all a functional disease; that is, it is not dependent upon anatomical changes of an abnormal sort in the nervous system. It is therefore not organic. It manifests itself by two groups of symptoms, one of which has reference to conditions of abnormal fatigue, the other to conditions of abnormal irritability. Clinically expressed, an individual to whose symptoms the term neurasthenia may be applied is one who becomes easily and quickly fatigued following, for what is to him, a minimal amount of exertion, and whose nervous system shows abnormally rapid and intense reactions out of proportion altogether to the exciting stimuli.

It will be seen from this that for such a diagnosis there are at least two groups of symptoms which must be considered, one having a purely physical expression, such as muscular fatigue, headache, indigestion, rapid heart, etc.; and the other a purely psychical expression in which depression, hopelessness, intense introspection, and exaggeration of symptoms form the background.

An interesting phase of the present inquiry might be illustrated by a comparative view of the frequency of neurasthenia in private practice in an out-door clinic under my charge at the Jewish Dispensary. In the private practice of neurologists, where the average physical surroundings are good and where various trades are represented and in which factory workers are very much in minority, the diagnosis of neurasthenia is justified in only about 5 per cent of cases. In the Grand Avenue Dispensary, in which the patients are largely laborers, foundry workers, workers in the metal trades and various out of door businesses, neurasthenia is comparatively rare. In the Jewish Dispensary, on the other hand, where, as it has been stated, from 40 to 60 per cent are factory hands in the garment trades, it is the most common neurological diagnosis made. The total percentage of this diagnosis can easily reach from 25 to 30 per cent. Now this discrepancy is sufficiently startling to warrant an inquiry directed toward the discovery of the factors which are found among garment workers particularly to explain so marked a prevalence of neurasthenia in that class.

In order to take a fair view of the matter and to properly guard the conclusions arrived at, we must consider in the first place something about the temperament and physical characteristics of the Russian Jew. He, as a type, is particularly liable to affections of the nervous system of the class to which neurasthenia belongs. Furthermore, it should be admitted that fundamentally he is not well adapted to factory work, is not a particularly good garment worker, outside of his industry, ambition, sobriety, etc.; and the reason probably is that the Russian Jew is primarily a trader and not a maker of things. The history of his activities in Russia or Poland throws a great deal of light on this subject, particularly in relation to his change in business activities upon arriving in this country; so we have at the very outset a condition of inability and in a sense an actual monopoly of a class that is essentially not adapted to the work which is finally to embrace so many of them.

In considering the whole question of the factory methods as seen in this class of cases, care should be taken to keep in mind the unfortunate tendency which has drawn into a trade a body of individuals poorly adapted to that trade. When we come to sum up the etiological significance of factory work, this part of the question must be carefully weighed.

In seeking for causes for the prevalence of neurasthenia among garment workers, there should be sharply differentiated causes which are inherent in factory methods as such, and causes which have to do with the tendencies in the factory hands, which have already been pointed out.

An inquiry into the etiological significance of the factors productive in so large a proportion of neurasthenics among garment workers should be regarded as strictly medical in character, and as such should be guarded by the usual limitations prevalent in reasoning of a clinical character. To the medical investigator the question of the right or wrong of factory methods has no place, nor should the many issues involved in the social or economic aspect of this large subject cloud the search for causes and their results.

As a general conclusion it must be admitted that a factory in which garments are made, even if the most ideal plans as far as arrangement, ventilation, cleanliness, etc., are carried out, is scarcely a place where ideal conditions of physical and mental health can either be preserved or developed.

How far this applies to other industries cannot be here stated, as investigations into this particular field have, as far as the writer is aware, not been made. There are no doubt other trades which are more destructive of the nervous health of workers than garment trades, and perhaps there is a larger incidence of neurasthenia among the workers in other industries. The conclusions arrived at are therefore limited in scope to the investigations in hand, and must not be regarded as applicable to any other kind of trade.

It has appeared to me that there are certain phases of factory methods found in the garment trades—but let it be understood, not characteristic of it—which deserve emphasis as bearing upon the question, and which have a very positive and direct influence on the production of neurasthenia.

Work in factories which produce garments is not continuous but is planned to meet exigencies of fashion and season. This means that at stated periods of the year work must necessarily be rushed to completion. During such periods the worker is compelled to work overtime and at the highest possible productive capacity. Such a period of intense exertion is followed by a great slackening of work, during which the factory force is cut down sometimes to a minimum proportion. The economic effect

of being out of work or working at what, from the individual worker's point of view, is an economic loss, invalidates whatever value there might come from the cessation or lessening of labor. This brings up naturally the insecure tenure of labor among this class of workers. The anxiety incident to loss of the accustomed wage, the doubt as to the permanence of position, the irregularity of work, all tend to increase the load which the worker must carry. To the imaginative and highly introspective Russian Jewish temperament, all these things, and more which it is needless to mention, cause that state of mind or perhaps fosters that mental attitude which we rather vaguely call worry.

Now worry may be defined as non-productive thinking or pondering not governed by the usual laws of reasoning. It rapidly becomes a kind of temperamental background or atmosphere into which the individual's mental life works itself out. Worry has always been regarded as one of the most important causes in producing neurasthenia; work itself probably can never produce more than a temporary state of exhaustion, recovery from which is pretty certain. The period of relaxation and rest in the individual who adds worry to his work is prevented almost totally. The injury results largely because the mental activity incident to worry is ineffectual and unproductive. If it be granted that worry is a common condition among this class of workers, and my own experience would seem to admit this, then we have one factor which can be brought into direct relation to the prevalence of neurasthenia in so high a proportion of garment workers.

There is one other significant phase of factory methods largely used in garment trades that merits attention; this is the piece-work system. I am conscious that in touching upon this I am treading upon delicate and debatable ground. My excuse is simply that I am talking and thinking as a physician who has no expert knowledge on this subject, but is mindful only of this one fact, that medically the piecework system is perhaps the most pernicious thing that could be devised to weaken what for a better term might be described as the dynamic efficiency of the nervous system. I am referring of course to the unregulated piecework system in which there is no maximum or average amount of work set down to keep the worker from speeding beyond his capacity. The pay that the pieceworker obtains for his labor is ingeniously devised and subject to change in amount so that he

must work at top speed to make it worth while. With the increased efficiency of the pieceworker, the price per piece of work turned out is commonly decreased, so that a greater and increasingly more intense effort is necessary to reach the individual's maximum reward for his labor. It needs no argument to convince even a sturdy advocate of that new idol called efficiency that such methods are bound, in the long run, to use up the worker. Charles William Eliot, in his recent essay on "Trade Unions and Capitalism", refers to piecework in this way: "Unless the stimulation to the individual is so intense, and the piece or contract work so limited and monotonous as to become unwholesome." From so earnest an advocate of the gospel of work and the virtue of competition, this is certainly significant. I have in my clinical experience sufficient evidence, I think, to suggest that the piecework system is in some instances a very direct cause in the production of a neurasthenic condition in a worker.

From the study of this rather large number of individuals engaged in similar kinds of work, it seems to me impossible to avoid the conclusion that the incidence of neurasthenia is altogether too high to be accounted for by racial or social peculiarities.

Some of the conditions found in garment trades which medically are recognized as important causative agents in the production of neurasthenia, I have endeavored to point out. Their absolute or comparative importance can only be arrived at by studies of a similar kind in other trades in which the material to be studied is of the same general kind in regard to racial and temperamental peculiarities.

It might be suggested that a collective investigation of such a kind on a large scale, embracing many kinds of trades followed through by different investigators, at various different centers, might throw additional light on the stubborn fact that some 25 to 30 per cent of 7000 garment workers who applied for relief at the Jewish Dispensary in the nervous department were found to be subjects of neurasthenia.

INDUSTRIAL DISEASES IN AMERICA

FREDERICK L. HOFFMAN

The actual and relative extent of industrial diseases in America can not be stated with even approximate accuracy at the present time. Our system of factory inspection is inadequate and woefully lacking in the required medical assistants, who alone can provide the necessary technical ability for qualified inquiry into the actual conditions of health and life in modern industry. The annual reports of our state factory inspectors contain very little useful information, and they are in this respect in marked contrast to the annual reports on factory inspection in England, Germany, France, Austria, Belgium, etc. There can be no really useful system of factory inspection without the assistance of medical inspectors, including women medical inspectors, as is the case in the United Kingdom. The value of medical assistance in factory inspection, and most of all in special inquiries to determine industrial processes injurious to health, is no longer open to discussion. The many valuable and far-reaching reports which have been made by the factory inspection service of the United Kingdom, and by special departmental committees and royal commissions, emphasize the corresponding necessity of qualified investigations in this country. Mention may be made in this connection of a recently published report of a departmental committee appointed to inquire into the dangers attendant on the use of lead and the danger of injury to health arising from dust and other causes in the manufacture of earthenware and china, and in the processes incidental thereto, including the making of lithographic transfers. The disclosures of this investigation are of peculiar application to American industry, but we have no means at present of making an equally thorough investigation into the conditions as they exist in the centers of our pottery manufacture. Equally suggestive and important is the special report of a home office committee on dangerous or injurious processes in the smelting of materials containing lead, and the manufacture of lead, orange red, and flaked litharge, which brings out the extent of lead poisoning in the various industries manufacturing or using lead, including processes in zinc smelting and observations on remedial measures, supplemented by rational recommendations for rules in conformity to German and French regulations.

Mention may also be made of a special report on dangerous or injurious processes in the coating of metal with lead or a

mixture of lead and tin, the results of which apply to a number of American industries employing many wage earners more or less exposed to conditions detrimental to life. Finally, reference may be made to the report of a departmental committee on humidity and ventilation in weaving sheds, the conclusions of which apply to a large proportion of our textile industries, in which the conditions are far from satisfactory. We therefore need in this country, in every state, a thoroughly equipped factory inspection service, including medical assistants trained in the principles and practice of industrial hygiene, and other experts qualified to investigate and report upon the numerous elements which enter into the whole question of rational health conditions in industry.

A committee appointed by the First National Conference on Industrial Diseases, to wait upon the President and present to him a memorial suggesting the appointment of a national commission on industrial diseases, has presented a thoroughly digested report in support of their recommendation that the whole subject of industrial diseases be made a matter of national concern. The committee laid stress upon the inadequacy of the existing state of information concerning health in industry, and their suggestions were largely in conformity to the admirable plan of inquiry adopted by the Illinois State Commission on Industrial Diseases. It is sincerely to be hoped that the President will see his way clear to give his endorsement to the proposed investigation, and that the memorial will be sent to Congress and printed as a public document for the information of the people.

The subject of industrial diseases is certain to attract more general attention in the future, on account of the countrywide demand for adequate workmen's compensation in the event of industrial accidents. Industrial diseases in many cases shade imperceptibly into industrial accidents, and the workmen's compensation legislation of England comprehends a large number of occupation diseases within the scope of the workmen's compensation law. On this ground alone a national inquiry would be of great practical value and would establish the actual extent of harmful industrial processes as they afflict a considerable proportion of our wage earners at the present time. It is hardly necessary on this occasion to emphasize the importance of industrial dust as a factor detrimental to health and life in industry, and the great practical importance of feasible methods of factory ventilation, dust removal, humidification, etc.

Industrial processes are often injurious not only to the health of the people employed therein, but occasionally to the surrounding population, and the vegetation of the near-by country within a radius of several miles. The practical aspects of this point are emphasized in the pending litigation against a number of large smelters, the fumes of which have been of serious consequence to the surrounding country, including national forest reserves, etc.; and a number of very important and useful contributions have been made on the effect of smelter smoke, by the scientific bureaus of the Department of Agriculture. In this respect, as in many others, the disease-producing factors in industry are of public interest, aside from their more immediate effect upon the health of a particular class of employees.

There is urgent need for a qualified expression of medical and other opinion upon the relations of industrial processes to the health of children and young persons. Obviously many trades are decidedly unsuitable for those who engage therein, on account of defective physique, eyesight, hearing, etc.; and the employment of all children and young persons in industry should be made subject to medical supervision and control. A brief treatise should be prepared by a competent committee to emphasize in the case of each particular trade or occupation the required physical capacity and endurance, the proper age at entry, and the processes injurious to health which are more or less likely to hinder bodily growth and future industrial capacity. A word of warning would often be sufficient to prevent young persons who are unsuitable for particular trades from engaging therein to the probably serious detriment to their health, and the practical certainty of early invalidity and premature death.

Another important question which demands consideration is the inadequacy of medical certification of deaths, which often fails to disclose the true cause of death or important contributory circumstances, that, for purposes of public health administration, are required to be known. The secondary symptoms are very often of greater public importance than the immediate cause of death; and particularly is this true of diseases complicated by the slow absorption of lead, mercury, etc., by the human system. Medical practitioners require to better understand, and they should attach greater importance to the symptomology of industrial diseases, particularly to lead poisoning in potteries, glass-works, white lead manufacture, house painting, etc. This is

equally true of tuberculosis caused or complicated by industrial dust, which very often assumes the true character of fibroid phthisis or industrial lung disease, requiring to be specifically reported as such and separate and distinct from general tuberculosis of the lungs. The annual reports of boards of health should contain a brief statement of the facts concerning industrial diseases, so that the local experience in particular trades may be utilized in the further development of the science and art of industrial hygiene.

But what is needed most urgently is the establishment of a *national institute of industrial hygiene* on a broad foundation, corresponding in character and extent to the research funds established by far-seeing philanthropy in behalf of other causes. Surely there can be no better investment of five or ten million dollars than in the establishment of a national institute adequately equipped for research work, including the treatment of the more severe and obscure forms of trade diseases in special clinics similar to the far-famed institution at Milan. Such an institute could carry out the work proposed for a national commission on industrial diseases, and by publishing the results of qualified research work would contribute immeasurably to the improvement of the conditions under which the industrial activity of the nation is carried on. Surely there can be no branch of scientific research in geology, botany, astronomy, physics, chemistry, etc., of more urgent necessity and of greater practical utility than research work to determine the causes, the methods of prevention, and the cure of industrial diseases. There is little enough material reward in the pursuit of industrial medicine as a distinct profession, but a national institute for the study of industrial diseases would give the required encouragement and place the whole subject upon a broad and permanent national foundation.

In addition to the foregoing there is need of a national welfare institute for the improvement of labor conditions, including a national museum of safety devices, of which the New York institution is the nucleus, and of which the Berlin institution is the ideal. Surely a national museum of specimens, of zoölogy, or of relics of antiquity can not compare in importance or utility with a museum of safety devices, whereby the calamities of industrial life are lessened and the ravages of industrial diseases are diminished. Surely what the generosity of the German government and

German philanthropy have brought about is equally possible of attainment in the United States.

In conclusion, then, the plea is—first, for the appointment of a national commission to investigate and report upon the whole subject of industrial diseases; second, for the foundation of a national institute of industrial diseases upon the broadest plane of a liberal philanthropy, corresponding to the great foundations of generous minded givers in other fields; third, for the establishment of a national institute for the improvement of labor conditions, including a thoroughly equipped museum of safety devices. It would perhaps be difficult to comprehend a more ambitious program in a few words, but where the issue at stake is the well-being of the wage-earning masses, who by their toil contribute so largely to the sum and substance of our national wealth, the object to be attained is well worth the required effort, and it is to be hoped that through persistent agitation on the part of the American Association for Labor Legislation these hopes and plans will be realized at a not far distant day.

COMPULSORY COMPENSATION FOR INJURED WORKMEN

DANIEL L. CEASE

I will not attempt to consider the legal aspects of compulsory compensation other than to assert that the liability laws leave the burden of accident and death just where it falls, that administration of the law has been in the direction of strengthening the defenses of the employer and in the protection of property rights as against personal rights. Our liability laws are obsolete, judge made, unfair, and demand a drastic change that will give a modern and humane application to the law of the killed and wounded.

It is customary to aver that compensation for injury or death will go a long way to reduce casualties, meaning that employers will install safety devices and exercise greater care in the operation of dangerous machinery, but I feel certain that even with assured compensation and the most perfect safety devices there will always be a terrible loss of life and limb. We have reached that stage in industry of which it can be said we have gone "output mad." Every scientific means, every mechanical device, has been employed as an aid to production, and with it the man has been shifted to the high speed which reduces the efficiency of safety devices for it places the entire question of safety automatically upon the device. The man cannot spare the time strictly to obey the rules laid down for his protection, but despite that fact when he is injured he usually is charged with negligence.

I almost wish that my paper had been confined exclusively to the specific rules for safety that are supposed to be in operation on certain of our railways. These rules are for the legal protection of the companies, and it is not intended the employees will observe them literally. They really are forced on the employee as a condition of employment for the purpose of taking away his defenses in case of injury, the federal law to the contrary notwithstanding, also to lead the public to believe that the railway employee is careless and indifferent of his personal safety; and they run counter to the insistent demand from the railway companies to have yards clear and trains moved regardless of the safety of the employees. These rules are used as common law defenses against liability.

I beg your indulgence for a moment to quote a paragraph from an official railway bulletin, of the protection to the employee kind, and to quote from a letter issued by a superintendent to his employees which told them exactly what was expected from them regardless of the safety bulletin. I quote from the bulletin:

".....Employees before they attempt to make couplings or to uncouple will examine and see that the cars or engines to be coupled or uncoupled, couplers, drawheads, and other appliances connected therewith, ties, rails, tracks, and roadbed are in good safe condition.They must exercise great care in coupling and uncoupling cars. In all cases sufficient time must be taken to avoid accident or personal injury."

This rule is for the legal defense of the company; now note the rule for the men:

"Entirely too much time is being lost, especially on local trains, due to train and enginemen not taking advantage of conditions in order to gain time doing work, switching, and loading and unloading freight. Neither must you wait until train stops to get men in position. It is also of the utmost importance that enginemen be alive, prompt to take signals, and make quick moves. In this respect it is only necessary to call your attention to the old adage, which is a true one, that when train or enginemen do not make good on local trains it thoroughly demonstrates those men are detrimental to the service as well as to their own personal interests, and such men instead of being assigned to other runs should be dispensed with. I am calling your attention to these matters with a view of invigorating energy and ambition, in order that your families who are dependent on you to make a success shall not some day point the finger of scorn at you, and that the public may not be able to say that you lost your position due to lack of energy and interest in your own personal welfare for which you can consistently place the responsibility on no one but yourself."

Compare the bulletin with the letter and note the difference. If other evidence were missing this would be sufficient to substantiate the statements that safety rules are made for the legal protection of the company, while the opposing rules for dispatching work jeopardize the safety of the employees. I say to you now that if railway employees observed the companies' rules for safety the railway lines of the United States would be within twelve hours as hopelessly congested as they possibly could be if a general strike had been in successful operation for a week.

Here then is the application of the usual safety rule intended

for the defense of the company and public information, and with it the personal admonition to the employee to take the risks of the business as they come to him, not to lose time, not to sacrifice speed and efficiency for safety, and urging him to remember that if he does not make good he will lose his job and be humiliated by the "finger of scorn" pointed at him by a starving family. He takes the chance, the finger of scorn does not humiliate him, but he pays the price.

Fortunately for this argument we have statistics of railway casualties, and, taking the past year, for which a report has been made, we find that nine men were killed each twenty-four hours and that one was injured or killed every seven minutes. To be specific as to casualties as they occur in the engine, train, and yard service, is to say that one man was killed for each two hundred and five employed and one was injured for every nine employed. The records of the Brotherhood of Railroad Trainmen show 16.4 claims paid per thousand insured; the Order of Railway Conductors pays twelve claims per thousand insured, the Brotherhood of Locomotive Engineers pays eight claims per thousand insured, the Brotherhood of Locomotive Firemen pays seven claims per thousand insured and the Switchmen's Union pays at the rate of 15.5 claims per thousand of insured. And two thirds of these claims are for accidents. The working life of a brakeman is estimated at only seven years.

What do the railways pay? No one knows, but it is reasonable to say that 10 per cent of injuries and deaths for which compensation is paid is the answer and the average amount paid is low.

The same rules for the defense of the employer are in operation in every industry.

The miners claim that four men are killed in America to one in Europe, and it is admitted that mining ordinarily and normally ought to be accompanied with less danger here than abroad.

Structural iron and steel workers and electrical workers stand a heavy loss in death and disability only to be guessed at in the total, for we lack full statistics covering these occupations.

It has been estimated that annually 4000 Pennsylvania miners are killed or injured and the records of Allegheny County, in which the great iron and steel industries of the Pittsburgh District are located, showed 10,000 casualties a year, a large proportion of which were deaths or total disablements and 80 per cent of which were inflicted upon men under forty years of age.

Few of these casualties have hope of recovery because no one was at fault, and the others have been divided among a half dozen causes few of which contained hope of recovery from the courts. The great heart of the corporation, however, arbitrarily provides sometimes for death or injury, paying as high as \$200 for the loss of a leg or both eyes, and much lower amounts, which usually do not pay the doctor's bill, for other losses.

A system of almost perfect mechanical production has been installed and the man must keep pace with it. So much must be produced per man, per machine, per hour; and the man knows if he falls below the minimum of production he will lose his job; and a job is a job even in this land of opportunity. He knows the inexorable rule. The result is that to change a gear, shift a belt, adjust a feed, or any one of the thousand ways offered the man to take a chance and keep his machine going without loss of time, is undertaken at the price of safety; and he pays the price. The employer pays nothing.

The occupational diseases that must be assumed by the employee, of which there is really no record, must be considered among the casualties, although they have little hope of compensation. All of them add to the burden of general human misery arising from suspended or decreased wages.

So we say advisedly, until sane rules of employment regulate industry, until it costs more to kill a man than to protect him, until the man and the machine are brought closer to the relative endurance of each other and safety devices are installed that automatically will prevent accident, we shall have an annual casualty roll that will warrant a repetition of the statement: the mines are stained with the blood of their victims; every skyscraper is cemented with the blood and brawn of its builders; every large enterprise is baptized in the blood of its workmen. Does it not appeal to you that there is an underlying cause other than negligence that is responsible for the casualty record? That a man works for another does not mean that he is indifferent to physical and mental pain.

The general toll of industry is estimated at anywhere from one half million upward annually, but we are unable to do more than estimate, for outside of railways no reliable statistics are available. The major portion of the killed and injured are young men. America has fixed the dead line of labor many years below that established as the earning capacity years of Europe, wherein

we find our principal business competition. This means that in America the results of injury have to be reckoned with many more years per man than elsewhere.

In a general way we realize what it means to the man who is left helpless and hopeless. One can in a way imagine the physical suffering which we believe can in part be compensated, but God alone knows the depths of mental despair to which the one-time physically perfect man is plunged when disability overtakes and threatens his earning capacity, for in this day he knows when he cannot work he becomes a pauper. I have seen strong men weep like children when they were out of work temporarily and their families were forced to limited living. What must it mean then to the one who in a moment knows he is done forever? If time permitted I could tell you of the last words of men who met death with only duty on their minds; who remembered their responsibilities even with the death sweat upon their brow; who fearlessly met the grim destroyer with full consciousness of all that it meant to them, and the only expression of personal concern aside from duty done was the heart-breaking question, What will become of my wife and the kiddies?

Is it right for that wife and those children to be thrown upon the world without a dollar or a home other than the charity institution? Society through the employer has demanded its sacrifice, therefore the human wreckage, the only unrewarded factor of our national business supremacy, should be recompensed.

We have been so busy making money that we have forgotten the real man who made it, forgotten his family, neglected ordinary rules for national welfare and safety until we are overwhelmed by the enormity of our industrial offenses, and we hope shamed into an effort toward forcing restitution. I say "forcing" for it never will be made otherwise.

We ask that every human sacrifice be fully compensated, without having to wait for the delays and uncertainties of the courts; we want the injured not to have to suffer mental pain with his physical ills for fear of the future of himself and family; we demand medical, surgical, and hospital attention; we want certainty of responsibility fixed for the employer, with certainty of compensation fixed for the employee; we want the injured employee and his family to remain just as useful members of society as they were before the industrial sacrifice was made. We want the defenses of negligence and assumption of risk eliminated and the

professional risk to rest upon the profession, not upon the injured man, so that liability will not offer its present invitation to fight, and that compensation will be acceptable to both parties. This is, I believe, the only way we can enforce compensation.

It is not right to permit the employer to continue in his defense of "professional risk" and to hide behind it to the exclusion of the rights of his employees, nor for society through its various charities to assume the burden of protecting the families of those who have laid down their lives or been hopelessly maimed in his service. It is inhuman to compel the employee to accept the responsibility for accident in exchange for the opportunity to work. That responsibility belongs exclusively to the employer.

American industry has been protected in every way possible by law and court decision, but the employees, the foundation of American industry, have been thrown aside as scrap and their bruised or broken bodies added to the long roll of human wreckage to attest to the unrecompensed sacrifices made in its behalf.

I emphatically stand for a national compensation act, to care for employees who can be protected by the federal government, and for the enactment of uniform state legislation that will compensate for the loss of life and limb which thus far has been given away for the right to work. It may sound coldly calculating to set a cost on life and limb; it even may appear to be fixing the price for a continuance of human butchery; it may seem to be inviting injuries under certain conditions, but if life and limb must be sacrificed restitution must be made. Conceding, in part, these objections which have little foundation in fact, every other reason is for immediate, permanent, and commensurate relief which should not in any sense be considered an unfair cost to the employer or a charitable proposition, but recognized purely as a "part of the day's wages."

PROBLEMS OF WORKMEN'S COMPENSATION LEGISLATION

THOMAS I. PARKINSON

The distinguishing feature of a workmen's compensation act is that it establishes a legal obligation on the part of employers to pay or to provide for the payment of a fixed or readily determinable sum in relief of the loss of income sustained by employees or their dependents by reason of industrial accidents arising out of their employment. This principle has been enacted into law by statutes recently passed in New York, Montana, and Maryland.

The New York legislature has passed two compensation acts, One¹ gives to employees injured in certain specified employments, declared by the act to be especially hazardous to employees, the right to recover a fixed compensation from their employer regardless of his negligence or freedom from it. The other,² applying to all employments except railroading, provides a plan of compensation which, when formally consented to by employee and employer, is substituted for their respective rights and liabilities under the existing employer's liability law.

The legislature of Montana has passed an act³ creating a state fund for the insurance of mine workers against death or permanent total disability from accident arising in the course of their employment, and levying a tax on employers and employees for the support of the fund. Maryland has passed a similar act⁴ which creates local funds in two counties for the insurance of coal and clay miners against temporary or permanent disability and death.

These are the only workmen's compensation laws in this country. The Maryland Act of 1902 (Ch. 139) was a limited death insurance act which, since it was declared unconstitutional by a lower court, has been allowed to lapse.

The Act of Congress of 1908, giving one year's wages to government employees injured in the course of their employment,

¹ Ch. 674 Laws of 1910.

² Ch. 352 Laws of 1910.

³ Ch. 67 Laws of 1909, effective October 1, 1910.

⁴ Ch. 153 Laws of 1910.

is an employer's voluntary compensation plan, similar to the relief provisions established by private corporations for their own employees. The Massachusetts Act of 1908⁵ gives public sanction to compensation plans adopted by employers and their employees and approved by a public officer.

The interest in the subject and the apparent demand for compensation laws is now so widespread that it may seem surprising that so little legislation has been secured. By legislation is meant enacted statutes, not drafted bills. A summary of enacted laws does not, however, represent the progress made in this field during the past two years. The movement to secure the enactment of compensation laws in this country really began in 1909, when commissions were appointed in New York, Wisconsin, and Minnesota to investigate industrial accidents and employers' liability, and to suggest remedial legislation.

Prior to 1909 there had been much discussion of the theory and merit of the compensation plans of other countries; reports on the operation of foreign systems had been issued by federal and state labor bureaus; bills involving some form of compensation had been introduced in state legislatures; but serious legislative consideration of the subject had been confined to Massachusetts, Illinois, and Connecticut. In 1904 the Massachusetts legislature refused to pass a bill, modeled after the English Act of 1897, which had been drafted and recommended by a special legislative committee.

In 1907 an industrial insurance commission reported to the Illinois legislature recommending the enactment of a law permitting employers to escape their common law liabilities for industrial accidents by contracting with their employees to insure them in accordance with the provisions of the act. This bill also failed of passage.

In 1908 Massachusetts, on the recommendation of a committee which reported adversely to a compulsory compensation bill, enacted the law above referred to by which employers and employees were permitted to enter into contracts fixing rates of compensation for injuries.

While very little progress was being made prior to 1909 in securing legislative recognition of compensation, there was a general tendency throughout the country to enact laws increasing the possibilities of recovery by employees in actions against

⁵ Ch. 489 amended by Ch. 211 Laws of 1910.

employers for injuries arising out of industrial accidents. These laws, commonly known as "employer's liability laws", abolished or restricted the common law or judge-made rules by which employers were able to defeat recoveries by their injured employees on the ground (1) that the injury complained of was caused by the negligence of the employee's fellow servant; (2) that the employee had assumed the risk of the accident which gave rise to the injury; or (3) that the employee's negligence had contributed to the causation of the accident. The extent to which these laws increased the employer's liability varied in different jurisdictions. Perhaps the most liberal from the employee's viewpoint was the Act of Congress of 1908 which, as to employees of common carriers engaged in interstate commerce, abolished the fellow servant rule, restricted the implied assumption of risk, and made contributory negligence of the employee a reason for reducing his damages, but not ground for dismissal of his action.

The employers' liability laws maintained the common law theory of liability, and provided for recovery by the employee only where he could show some fault on the part of his employer; they did not attempt to extend the employers' liability to those accidents which may be said to be inherent in the employment rather than due to fault or negligence. In two important particulars, however, these laws contributed to the subsequent progress of the compensation movement. They served to center public attention on the injustice of the results produced by the operation of the judge-made law relating to employers' liability. They caused employers who saw their liability increased and their liability insurance rates mounting higher and higher, with each restriction of their common law defences, to become more hospitable to the compensation idea.

In 1909 a Connecticut commission, appointed in 1907, reported that the employers' liability laws were not giving satisfaction, but that it was inadvisable at that time to recommend a compensation law. During the same year the legislatures of New York, Wisconsin, and Minnesota authorized commissions to investigate compensation for industrial accidents.

To appreciate accurately the progress made since the appointment of these commissions, it is necessary to consider (1) the extent to which public opinion has become interested to support the enactment of compensation laws, and (2) the extent to which the economic and constitutional obstacles have been overcome. Set-

tlement of the technical problems means but little in legislative progress if public opinion remains unfavorable. On the other hand, an aroused public opinion represents but little progress in legislation if economic and constitutional barriers still block the way.

Remarkable progress has been made in securing for compensation the intelligent support of public opinion. The public, exclusive of employer and employee, has awakened to its interest in the results of industrial accidents. The operation of the rules of liability developed by the judges under the common law, and to a lesser degree under the employers' liability laws, results in placing on the injured employee and those dependent on his wages the entire hardship of his injury. The injustice to these individuals as well as the possible necessity for public care of incapacitated employees or their impoverished dependents, and the probable public loss in a tendency toward lower citizenship of dependent minor children deprived of the advantages of education and home life, have given rise to a public demand that fixed or readily determinable compensation for all industrial accidents be substituted for the existing system.

Interest in the subject has spread rapidly over the greater part of the country. Commissions are preparing compensation bills for submission to the 1911 session of the legislatures in Massachusetts, Ohio, Minnesota, and Wisconsin. The Illinois Commission reported on September 15, 1910, that it had been unable to agree upon a bill in the limited time allowed for its investigations. Commissions are investigating the subject in New Jersey, Missouri, Montana, and Washington, and steps have been taken for the appointment of commissions in Pennsylvania and West Virginia. By authority of Congress President Taft has appointed a commission to consider compensation legislation for employees engaged in interstate commerce. Committees on compensation laws have been appointed by the Conference of Governors, by the Conference of Uniform State Law Commissioners, and by the American Bar Association. In addition to these official and semi-official agencies many private individuals and associations, such as the American Association for Labor Legislation, the American Civic Federation, and the National Association of Manufacturers, are actively coöperating in what bids fair to be a general movement to place some kind of compensation law on the statute books of every jurisdiction in the country.

The objection that a compensation act would seriously add to the burdens of industry in the state where it was enacted, and thereby handicap that state in its industrial competition with other states, was effectively interposed to prevent such legislation in Massachusetts in 1904, and again in Connecticut in 1909. On the one hand it is said that the added cost of compensating all injuries to workmen will drive industries out of the state which enacts such laws into states where the common law or employers' liability laws still prevail. On the other hand it is said that the industrial advantages—particularly the improved relations between employer and employee and the consequent improvement in the character of the employees' work—will make it entirely safe for any state to pass such laws irrespective of the action of other states. Germany is cited as an example of industrial development under a strict and extensive compensation and insurance law despite competition with countries where laws less favorable to employees prevailed. Evidently the "bugaboo of interstate competition" influenced the New York Commission, for its act applies only to those employments in which there is little or no interstate competition. The tentative drafts of acts prepared by the Wisconsin and other state commissions contain no such limitation.

Whatever the importance of this objection to compensation legislation in a single state, a movement has already begun to overcome it. The 1910 Conference of Commissioners on Uniform State Laws appointed a committee authorized to draft a uniform compensation law. A meeting of this committee was held in New York on December 23 immediately following a conference of the Department of Industrial Accidents of the National Civic Federation. The results of these conferences will probably go far toward removing the obstacle of interstate industrial competition by securing uniform compensation acts in all the important industrial states.

The immediate effect, however, of the efforts of the uniform law committee may be to delay progress in several states. The committee has suggested that commissions which are expected to report to 1911 legislatures should delay their reports, if possible, until a uniform act is prepared and agreed upon. It is easier to secure uniformity in this way than by substituting a uniform act for one previously enacted. This suggestion may delay the reports of the commissions of Minnesota, Wisconsin, Massachusetts, and Ohio, or may influence the action

of the 1911 legislatures in these states. According to the rules of the Conference on Uniform State Law, any act drafted by the committee on compensation must be reported to the 1911 Conference and agreed to by the Conference before being reported to the several state legislatures for enactment.

Employers as well as employees are convinced that some form of compensation law is desirable. There are, however, some important details upon which compromises must be effected before any particular bill will receive the support of both the parties directly affected. Employees believe that all existing rights and liabilities respecting compensation for injuries should be abolished and the whole law of employers' liability embodied in a compensation act. Employees seek to retain their existing rights and remedies concurrently with the added advantages of a compensation act. The New York compulsory act does not abolish existing remedies, but puts the injured employee to his election after the accident whether he will proceed under his old remedies or under the compensation act. The tentative draft of an act prepared by the Minnesota Commission abolishes all existing remedies. Other suggested bills abolish existing remedies, except where the injury is due to the personal negligence of the employer. In order that the objectionable features of common law litigation may be entirely removed from the law of employers' liability it seems desirable that the existing remedies be repealed so far as it is possible to do so. This was the conclusion of the conference of commissioners at Chicago on November 10, 1910. The principal difficulty, in addition to the attitude of the employees, is a constitutional one which will be considered later.

Again, employers and employees are not agreed as to the rates, terms, and period of compensation. Employers contend that compensation acts should distribute the burden of industrial accidents, not transfer it entirely to the industry, and therefore that the compensation payable to the employee should be less than his entire loss. Employees contend that the industry rather than the employee should bear the burden of losses inherent in the industry.

The New York acts give to dependents of a killed employee a sum equal to twelve hundred times his average daily wage not exceeding a total of \$3000, and to wholly or partially disabled employees a sum equal to 50 per cent of their loss in average weekly earning capacity, not exceeding the sum of \$10 per week, for a period of eight years. These provisions are subject to the

limitation that in no case shall the compensation exceed the damage suffered.

A more liberal scale of compensation is provided by the tentative bill prepared by the Wisconsin Commission. In case of disability the injured employee is allowed 65 per cent of his weekly wage, not exceeding three times his annual wage for any one injury, for an aggregate period not extending beyond fifteen years. Dependents of a killed employee are allowed a sum equal to three times his annual earnings not exceeding a total of \$3000, payable in weekly instalments.

The schedule of rates agreed upon at the Chicago Conference in November of this year was as follows: For temporary or permanent disability one half of the impairment in wages, but not more than \$10 nor less than \$5 per week for not more than three hundred weeks. For total dependents in case of death a sum varying from 25 to 60 per cent (according to number of dependents) of the employee's wages, but not more than \$10 nor less than \$5 for not more than three hundred weeks.

These provisions indicate in a general way the tendency of proposed legislation. It is difficult to estimate how far employers and employees differ as to the fairness of these allowances. As bearing upon this question, however, it is interesting to note the attitude of the employees' representatives on the Illinois Commission which on September 15, 1910, reported their inability to agree on any recommendation with regard to compensation. They stated flatly that they would not agree to compensation laws unless they had first secured liberal employers' liability laws. The obvious purpose of this position is to secure a lever by which to increase compensation rates. At the present time the employer can say to the employee, "You ought to be satisfied with compensation of 50 per cent of your wages for a limited period; you will at least get something where now you have nothing." If the employee can secure employers' liability laws as liberal as the Act of Congress of 1908—and the tendency is certainly in that direction—his possibilities of recovery without compensation laws will be much increased. He may then say to those who propose compensation laws that the sums fixed by those laws must be reasonably proportionate to his rights under the employers' liability laws. In other words, the employee may well believe that in fixing the rates and period of compensation, legislatures are apt to be influenced by the rights of employer and employee exist-

ing at the time the compensation law is passed. If before that time the employee succeeds through more favorable liability laws in increasing the amount which employers are obliged to contribute annually to their injured workmen, may he not reasonably expect that the rate of compensation will be proportionately higher?

If it be contended that there is a limit to the burden which industry can bear, the employee may reply that an actual test should be made; that for many years society has tested the employee's ability to bear the loss involved in industrial accidents, and the employee has paid the cost of the experiment; and that until it is actually demonstrated that industry cannot bear the cost of fair compensation for the full period of incapacity or dependency the cost of further experiment should be borne by the industry. The serious answer to this position, however, is that employees as well as employers have an interest in the preservation and extension of our established industries, and experiments which may seriously handicap or ruin an industry are more serious to the employees than their present losses incident to industrial accidents.

The determination of fair rates and terms of compensation—fair to employer and to employee—requires a thorough study of existing conditions in the various industries, and, until such a study has been made, estimates of what is fair, or of what the industry can bear, can be little better than guesswork.

The principal impediment to progress in securing workmen's compensation legislation in this country has been the contention that it is unconstitutional. To appreciate this difficulty it is necessary to keep clearly in mind the chief purposes of this legislation. Briefly these are: (1) to secure to employees compensation in all cases of injury through accidents which arise from risks inherent in the particular employment; (2) to make this compensation either fixed or readily determinable without resort to common law rules of damages or jury trials; (3) to do away with the waste of time and money and the hostility between employer and employee involved in litigation over the fact and the measure of liability.

The constitutional objections urged against compensation legislation are:

1. That it is an unwarranted interference with individual rights of personal liberty and private property guaranteed by the Four-

teenth Amendment to the United States Constitution, and by similar provisions in most of the state constitutions; and that the limitation of such legislation to specified classes of employments entails a deprivation of the equal protection of the laws.

2. That the attempt to create a fixed liability to pay a fixed compensation without resort to a jury trial deprives the employer or employee, or both, of the constitutional right to trial by jury.

3. That a fixed compensation is forbidden by specific provisions in the constitutions of some states.

The Fourteenth Amendment provides: ".....Nor shall any state deprive any person of life, liberty, or property without due process of law, nor deny to any person within its jurisdiction the equal protection of the laws."

In considering whether a compensation act violates these provisions it is important to determine whether the act is to be limited to accidents inherent in and incident to the risks of the employment, or is to cover all accidents causing injuries to the employee in the course of his employment. Shall the act cover, for example, the English case where a workman while opening a bottle containing part of his luncheon sustained an injury resulting in blood poisoning and death? The injury happened in the course of, but was not inherent in or incident to, his employment. It might have happened to him or anyone anywhere. If the act covers such injuries it will probably be held unconstitutional, because it takes the employer's property without his consent, and without his fault, and without any peculiar circumstance requiring an exercise of the state's police power, and gives it to the employee to relieve him from the hardship of a pure accident.

The New York act is limited to "personal injury by accident arising out of and in the course of the employment.causedin whole or in part.by a necessary risk or danger of the employment, or one inherent in the nature thereof." Even when thus limited, compensation laws necessarily impose on employers the liability to compensate workmen whose injuries cannot be traced to any fault of the employer. It is said that fully 50 per cent of industrial accidents are due to risks of the trade rather than to any fault of employer or employee. "They just happen." Such accidents cannot be prevented, as industry is now conducted, by any degree of care on the part of the employer, and if he is made liable for them he becomes practically an insurer

of the safety of his employees. A law establishing such a liability involves the taking of employers' property for the benefit of employees; but whether it amounts to deprivation of property within the Fourteenth Amendment depends upon its reasonableness as an exercise of the power of the state to establish regulations for the public safety or welfare.

In support of the reasonableness of such a law it has been suggested that similar degrees of liability are well known at the common law. The owner of dangerous property or animals is absolutely liable for the damage done by them, irrespective of his care in preventing it. The United States Supreme Court has recently upheld a state statute making railroad companies absolutely liable for injuries to passengers. In like manner it is argued that the state may provide that an employer who voluntarily enters into a particular business thereby assumes the risk of all accidents inherent in and incidental to that business, irrespective of the possibility of preventing such accidents.

Without reference to analogies at the common law, the principle of liability without fault may be sustained as a reasonable exercise of the state's police power, if it can be shown that existing social and industrial conditions require that the burden of all industrial accidents be transferred from the employee to the employer. The courts have not laid down any general rule limiting the police power or defining what is a reasonable exercise of it. It is settled, however, that, in order to justify state interference with personal liberty or private property, there must exist conditions which reasonably require regulation involving such interference.

Can it be said that such conditions exist in all employments? Some employments, such as railroading, subject employees to constant risk of serious injury. Clerks, on the other hand, may be exposed to less risk while at work than while going to or from their places of employment. So far as a compensation act is dependent on existing conditions, it seems more likely to be held a valid exercise of the police power if it is limited to hazardous employments. For this reason the New York act applies only to specified employments declared by the legislature to be extra-hazardous.

This limitation of the act to selected employments gives rise to the additional constitutional objection that, unless the classification which forms the basis of the selection is fair and reason-

able, those who are thereby subjected to the special burden are deprived of the equal protection of the laws. A reasonable classification of employments is as difficult to define as is a reasonable exercise of the police power.

It would seem, however, that not all the employees of an employer engaged in a hazardous industry, but only those subject to the hazards of the industry should be included in the act if the classification is to be upheld by the courts. The classification upon which the New York act is based, as shown by the Commission's report, depends, not on the presence of hazard, but on the absence of interstate industrial competition, and this fact is seriously urged against the constitutionality of the act in the litigation now pending in the New York Court of Appeals.

Various schemes of classification have been suggested. One state commission proposes tentatively that all employers of a specified number of workmen shall be subject to the act. This is a species of classification which has been held constitutional for other purposes. Again, it has been suggested that the act apply to all "hazardous employments", leaving it to the courts to determine which are such. It seems better, however, and ought to be possible for the legislature to determine with reasonable accuracy what are the employments in which there is grave danger of serious injury to employees and to pass an act specifically applying to employees subject to the hazards of such employments.

Many state constitutions contain provisions guaranteeing the right of trial by jury in civil cases. A similar provision in the United States Constitution applies only to actions in the United States courts and does not affect state legislation. It is objected to compensation laws that they deprive both employee and employer of this fundamental right.

The employee's right of trial by jury would probably not extend to those cases where his right to recover depended wholly on the compensation act, that is, those cases where his employer is not now liable. The legislature in giving the employee a new right may prescribe the remedy by which he shall enforce it. But in those cases where the employee now has the right of trial by jury in actions of tort against his employer it seems that an attempt to substitute any other mode of determining his right to and the amount of his damages would deprive him of his constitutional right. It is for this reason that, in most of the suggested bills, the employee's existing rights, including the jury trial where he is now

entitled to it, are not abolished but are continued concurrently with his additional right to compensation.

The right to jury trial may be waived. Therefore it may be provided that the employee must elect after the accident whether he will proceed under the compensation act, or will insist on his common law rights and remedies. One of the purposes of compensation laws is to avoid common law litigation, and, particularly, jury trials. Since the employee's right to a jury trial must be left to him in the cases mentioned, it has been suggested that there be inserted in the law a provision making his election of his remedy a bar to any other procedure for the same claim, and an additional provision which will act as an inducement to the employee to elect to proceed under the compensation law.

The employer is likewise entitled to trial by jury. If, however, the legislature creates a liability in all cases of accident, and also fixes the amount of that liability, there is little left for a jury to try except the question of the employee's wilful negligence, and whether the accident occurred in the course of his employment. Even in these cases jury trials should be dispensed with if possible in order to secure the full advantages of compensation.

The New York act does not attempt to abolish the jury trial. It provides that all disputes as to compensation shall be settled in the usual way by suit at law, including the trial of questions of fact before a jury.

As a substitute for jury trial, compulsory arbitration has been suggested as a means of settling disputes. The legislature may require employer and employee to submit their disputes to an arbitrator prior to bringing them before a court, but there is some question of the legislative right to provide that an appeal from the arbitrator's award shall be disposed of by the court only, without a jury. If the appeal must be tried before a jury, arbitration will not get rid of the annoyances of jury trials, but it will probably decrease their number.

The Wisconsin tentative bill creates an "Industrial Accident Board", with power to decide all disputed questions arising under the compensation act, subject to a limited right of appeal to the courts. The court without a jury is authorized to pass upon such appeals.

Another suggestion for the elimination of the jury trial is that the provisions of the compensation law—particularly instalment payments and increases and decreases in the amount of such pay-

ments—create equitable, rather than legal rights, which require for their enforcement a procedure unknown to the common law, and that, therefore, all questions arising under the act may be finally settled by a judge sitting in a court of equity without a jury.

These are the principal constitutional objections to the compensation laws. The right of all persons to personal liberty, private property, and trial by jury are fundamental constitutional guarantees, and compensation laws must be made to conform to them. A few years ago the guarantee of personal liberty and private property would have been considered fatal to compensation. The courts are gradually taking a broader view of the state's power to legislate for the public welfare consistently with these constitutional guarantees to the individual, and are constantly discovering "constitutional loopholes" by which social legislation having the support of public opinion may be fitted into our legal and constitutional systems. If existing social and industrial conditions resulting from industrial accidents afford a reasonable ground for the extension of employers' liability to all accidents, except those due to the wilful fault of the injured employee, then such legislation will be upheld as a valid exercise of the state's police power. The constitutionality of the law depends upon its reasonableness, and this depends upon the existence of the conditions which are said to require its enactment.

The constitutional right to trial by jury—while it must be admitted that it is a serious obstacle to a compensation law which would abolish all existing employers' liability law, substitute therefor the provisions of the compensation act, and provide that all disputes be settled without recourse to jury trials—is nevertheless consistent with a law which secures many if not all of the substantial advantages of compensation.

The Wisconsin bill attempts to avoid the constitutional difficulties by making the enforcement of the compensation plan dependent upon its acceptance by employer and employee. By this method the act is made to rest, not upon the state's power to regulate, but upon the contract, express or implied, of the parties affected.

Where the constitutional difficulties arise not from fundamental principles of constitutional limitation, but from specific provisions in state constitutions in the nature of legislative enactments—as, for example, the New York provision that the legislature shall not limit the amount recoverable in actions for damages for

injuries resulting in death—it may be necessary, and should not be difficult, to amend the constitution to permit the enactment of a compensation law.

Some of these constitutional questions will be settled by the decision in the case of *Ives vs. South Buffalo Railway Company* which will be argued before the New York Court of Appeals early in January, 1911. It may be that the decision in that case, which involves the validity of the New York compulsory act, will be announced by the court in time to enable 1911 legislatures in other states to profit by the New York experience before determining upon the precise form and contents of their compensation act.

The decision of the United States Supreme Court in the case now pending before it, involving the constitutionality of the federal employers' liability law of 1908, will throw some light on the question of the power of Congress to pass a compensation law applicable to employees engaged in interstate commerce.

In conclusion, it may be said that at the close of the year 1910 there is general agreement among those who have considered compensation for industrial accidents that some form of compensation act is now desirable and demanded in this country; that compensation bills prepared by special legislative commissions will be introduced at the 1911 sessions of the legislatures of Massachusetts, New Jersey, Ohio, Wisconsin, and Minnesota; that the coöperation of the several state commissions, and the efforts of the Conference of Uniform State Law Commissioners, are preparing the way for uniform state compensation laws in the chief industrial states; and that the constitutional difficulties are no longer regarded as insurmountable, but only as requiring careful investigation of the conditions which are said to justify the law, and careful statement of its provisions.

The study of conditions is also required for the determination of the mooted questions of a fair rate and period of compensation. The progress of the compensation movement in the future will depend upon the extent to which, by scientific study of conditions, the details of the law are intelligently determined with fairness to all parties, and the reasonableness of the law as an exercise of the state's police power is legally established. The drafters of constitutional and effective compensation laws must prepare themselves by careful study of the law and the facts, and they must see that the provisions of the law are couched in language of the utmost precision.

VOLUNTARY INDEMNITY FOR INJURED WORKMEN

F. C. SCHWEDTMAN

Let me preface my remarks with an apology to you and to the great subject upon which I am to speak. A month ago your worthy Secretary advised me that I was to have fifteen minutes for a discussion of my subject. I told him that no one could do the subject justice in that length of time, whereupon he extended my time allowance. I promised faithfully to speak not a second longer than twenty-five minutes, and I am in the habit of living up to my promises. My time is just long enough to discuss and illustrate a few fundamental principles. I cannot possibly convey to you more than twenty-five per cent of what I should like to say, and what I ought to say in justice to the subject assigned to me for discussion.

My subject is "Voluntary Indemnity for Injured Workmen." Let me begin my argument with the startling statement that in my opinion *voluntary* indemnity alone will never settle the problem of providing equitable compensation for the incapacitated members of our industrial army. But let me add to this statement that I feel equally sure that compulsory action *alone* will never settle the problem.

Only by compulsion can the reactionary member of society be made to do his share of the common duty. Only by voluntary action will the patriotic progressive individual do the best that is in him or her. Only by compulsory legislation can a national system be established which will provide the necessary regulations for prevention of accidents and minimum relief for disabled workers or their dependents. Only by *permissive* legislation and voluntary action can the best individual effort be encouraged and the maximum benefits secured.

I need hardly say that when I speak of "progressives", "reactionaries", fair and unfair, I speak of all the nation and not of a class. I speak of legislators and lawyers, employers and wage workers, insurance men and doctors. We are wasting time when we seek to blame one set or class of people for the shortcomings of our present scheme. The large majority of all people is fair-minded and wants to do the right thing. I could show you tonight systems of relief in some of our members' shops, which are fully

as liberal in dealing with their injured, sick, or superannuated workers as the very best European examples; and in several cases such systems cover establishments with five to twenty-five thousand and employees. It is the system, and not the men, that should be criticised.

In order to improve our present system and change it to a point which is in keeping with our great country, our institutions and our people, we need the patient and hearty coöperation of the good people of all classes. This is not the time and place to enter into a discussion of employers' liability laws or systems. The question is no longer, "Should we establish an accident compensation system?" The question is, "What should be the basis and principles of our future compensation system?" The National Association of Manufacturers, which I have the honor of representing, has put itself officially on record as disfavoring any kind of employers' liability scheme, because such schemes are "unsatisfactory, wasteful, slow in operation, and antagonistic to harmonious relations between employers and wage workers." In place of such a system the National Association of Manufacturers recommended, at its last annual meeting, an "equitable, voluntary, mutually contributory indemnity system, automatically providing relief for victims of industrial accidents and their dependents." Special stress is placed, officially, upon *accident* prevention and its greater importance even than compensation.

Since this official declaration was adopted, a four months' inquiry into European systems has been completed by Mr. Emery, our legal counsel, and myself, and our report has been placed before the officers of the National Association of Manufacturers and a large body of fine men, who, as members of a special advisory board, are giving us the benefit of their judgment and experience.

I shall read some extracts from our latest findings. But before proceeding to do this, let me assure you that our European investigation was not conducted with the expectation of adopting, as a whole, the system of any one of the European countries. We shall never Anglicize, Germanize, or Gallicize our institutions nor our people. We can, however, greatly profit by foreign experience with a common problem. The world owes a debt to those nations which, with prudent boldness, have deliberately undertaken vast social experiments for the benefit of their people. It is not only our privilege, it is our duty, to benefit by the experience of such

nations. And now for the findings of our Committee. Our Committee finds:

I

That limited compensation for personal injury received in the course of employment is assured in substantially all European countries; that it rests upon the acknowledgement as a basic fact that injury by accident in employment arises not only from negligence, but from the risk inherent in the use of modern implements of production; that the economic effect of the increasing percentage of unavoidable accidents should primarily rest upon the employments in which they are incurred, and not upon the individual who receives them, through a system of compensation which, providing him and those dependent upon him with substantial relief, likewise operates to minimize preventable accidents by every precaution—the pecuniary burden of the system thus passing as part of the cost of production to society, for whose ultimate benefit it has occurred. The fault ceases to be the basis of recovery, except where it jeopardizes the safety of fellow employees, or assumes the form of wilful self-injury or criminal negligence. This principle is and should be applied to *all* employments, save in exceptional instances where difficulties of application merely defer its extension.

That all countries adopting the compensatory principle are not equally successful in applying it, but the better results of European experience demonstrate that the principle is socially beneficial, economically expedient, and industrially advantageous, and if applied in conformity with our form of government, mode of thought, and condition of labor, would confer undoubted benefits.

II

That the advantages perceived in the compensation system were secured and are maintained only in accompaniment with a sound, vigorous, and scientific system of accident prevention, stimulated by public and private coöperation, with suitable provision in all cases of personal injury for prompt and efficient first aid medical treatment.

III

That the compensatory system has been successfully applied in Europe only when based upon the careful investigation of trained minds, predicting their conclusions upon ascertained facts. We believe intelligent legislation must be based upon deliberate in-

vestigations and accurate information, and that the success of any scheme is inseparably associated with the scientific system of accident statistics and investigation of accident causes.

IV

We find in all European states compensatory legislation is intended to exclude, or purposely endeavors to discourage or retard, the use of preëxisting remedies for recovery in action based upon personal injury. We find that a single liability is essential to satisfactory operation of the compensatory principle, and its adoption should be accompanied by the repeal, so far as possible, of all other remedies within the limit of its application.

V

We find as an essential feature of all European systems, provision for rapid, cheap, and impartial adjustment of compensation claims by tribunals of arbitration whose judgment is final on questions of fact and subject to one or more appeals on questions of law.

VI

Compensation must be assured or it becomes an empty right and useless remedy. If it is dependent upon the solvency of the employer, the position of the employee of the small employer is not improved. Insurance alone assures solvency and guarantees recovery to the workman and lessens the burden of the employer. Provision should, therefore, be made whereby every employer of labor shall satisfy the proper state authorities that the payment of the prescribed compensation is assured to his employees through either one of the following methods:

1. By the employer's own financial liability, or
2. By an accident insurance department organized and maintained by the state, or
3. By insurance in private liability insurance companies, duly approved by the state, or
4. By insurance in mutual insurance associations duly approved by the state.

Assurance under any one of the last three plans must operate to relieve the employer from personal liability. The closer the connection and coöperation between shop management, insurance management, and accident prevention activities, and the closer the insurance rates are based upon the individual accident prevention effort of a shop, the better and more efficient the system will be.

VII

We find in the complete statistical record of the German Empire covering a period of twenty-five years and sustained by the less complete returns of other European countries and the relative rates of private insurance, that we must readjust our conventional notions of the comparative hazard of various employments. European and Canadian evidence indicates a high percentage of accidents in agricultural as well as in industrial pursuits. If, therefore, any one employer becomes an insurer against accidents in employment, all employers should bear the same burden in proportion to the actual hazard of their particular pursuits. We find that the application of the principle of compensation should be universal or it places unequal and arbitrary burdens upon classes of employers and denies participation in the benefits of its remedial provisions to vast classes of wage workers.

VIII

We believe those systems most equitable and effective which require contribution from employer, wage worker, and possibly the state. A system cannot be effective in preventing accidents or in discouragement of fraudulent claims which does not secure the fullest coöperation of employer, employee, and state; and no system can be just or in keeping with the American spirit of securing benefits in proportion to individual effort which does not place the burden of making compensation for accidents jointly upon those responsible for their occurrence.

IX

We feel called upon to emphasize that any application of the compensatory principle in our country requires assurance of substantially uniform legislation by the states of the Union. The establishment of a variety of systems differing in form and substance and creating new liabilities, varying in nature and degree, would produce conditions too obviously harmful to require amplification.

X

We are conscious that the introduction of principles implying systematic compensation of accident into our form of government bristles with legal difficulties. We here are not concerned with their consideration or discussion; we are primarily interested in the selection of a sound policy. The nature and extent of desirable change is to be ascertained before the method of its

execution becomes the primary concern. We believe, however, that the encouragement of voluntary action by employers has not received sufficient public consideration. While our legislatures deliberate over their powers of compulsion, they might also with profit give full consideration to their opportunities for persuasion. The voluntary adoption of equitable schemes can be expedited by lessening the liability of employers who guarantee just compensation, as well as by threatening the legal defenses of employers who do not.

The basis for our conclusions we shall be able to place before members of the American Association for Labor Legislation at an early date in the form of charts, diagrams, and figures. They are compiled from an investigation of the subject among 20,000 American manufacturers and after a four months' study of European conditions.

The short time at my disposal does not permit such a lengthy and thorough discussion of the whole subject as I should like to indulge in, but in conclusion I want to impress upon you the advisability of your coöperation with progressive employers' associations. It requires the best efforts of all patriotic men and women interested in this question to settle it equitably and promptly. The scientific man alone can accomplish little; the same holds good of the legislator, the lawyer, the wage-worker, and the employer; but coöperation between all of these forces will result in the early adoption in all the states of the Union of a system which is reasonably free from all the defects of European systems, and which at the same time embodies the best points of all of them. You will find the National Association of Manufacturers in the front rank of the forces working constructively for an equitable compensation system for injured workers. We shall work with you if we can, without you if we must.

THE PLACE OF THE INCOME TAX IN THE REFORM OF STATE TAXATION

T. S. ADAMS

The present paper is addressed to the economists of this Association in their professional capacity; it should be interpreted not as a defense of the state income tax, but as a plea for the reconsideration of a question upon which, apparently, the guild of economists is about to pronounce a final decision. Three quarters of a century ago the economists of the English-speaking world drifted into a position of antagonism to the trade union.¹ The consequences were unfortunate to everybody concerned. Today the economists of this country have lined up in opposition to the state income tax in an array so nearly unanimous that the outside world would be justified in asserting that current American political economy is against the state income tax.² Before such a decision is irrevocably registered and accepted by the economists themselves, I ask a rehearing. The reasons for this request are as follows:

I

The strongest arguments against the state income tax are not altogether convincing.

1. The first of these is the assumption that the only kind of an income tax which can succeed in the United States is one constructed on the English model and dependent for its success upon the device of collection at the source. This assumption loses sight of the fact that a large majority of the successful income taxes now in force in Europe make practically no use of

¹ This has been denied, but the more authoritative opinion seems to support the statement in the text.

² Mr. Lawson Purdy, an authority for whom the writer has the greatest respect, goes out of his way in a paper on the federal corporation income tax, to express this opinion: "It has been suggested that the power to tax incomes should be reserved to the states. This suggestion must be made in derision, or in profound ignorance. Several states have tried to impose income taxes and failed utterly, as they must fail. The only income tax which has a chance of success must be patterned after the British income tax, which taxes all incomes and uses corporations as tax collectors. This requires nation-wide jurisdiction." *State and Local Taxation*, Third International Conference under the auspices of the International Tax Association, p. 229.

the device of collection at the source—or no more use of the device than any American commonwealth could easily make. In fact, of the large number of state income taxes collected on the continent of Europe, only those of Spain, Italy, and Norway, so far as I can learn, make extensive use of collection at the source. It is very difficult to get information concerning the efficiency of these lump-sum income taxes. Some of them are doubtless failures from the administrative standpoint, as in the Swiss canton of Zurich. But a few of them are conspicuously successful, and many of them, from all that can be learned, are quite as successful as our American tax on real estate.

2. Continental experience with the income tax furnishes sufficient reason to doubt another of the arguments confidently adduced against the state income tax, the argument that the income measure or basis is particularly unsuitable for local taxation, and that the chances of success of the income tax increase *pari passu* with the extent of territory over which it is levied. Saxony (with only 4,202,216 inhabitants in 1900) collects a progressive income tax and, from all that can be learned, administers the tax successfully, as does Baden (with less than 2,000,000 inhabitants in 1900), Bavaria (with a population of 6,176,057 in 1900), and many of the other German states which are even smaller. In several of these commonwealths, moreover, income is employed as the basis of both state and municipal taxation. In Prussia, for instance, according to the latest statistics which I have seen, the municipalities collect 54 per cent more on the basis of income than the central government itself. And yet American writers constantly assume that if the federal government is to employ the income tax, the several state governments must forego that privilege. In point of theory there is no tax so suitable for use by both federal and state governments as the income tax, and if the rates are kept moderate it is hard to see any practicable objection against this dual system. Of course, if we must collect at the source, a federal income tax is the only form which has any chance of success. But, as European experience suggests, collection at the source is not indispensable.

3. Closely connected with the preceding argument is the contention that state income taxes in this country, if widely introduced, would give rise to an intolerable amount of double taxation. They might, but they need not necessarily do so. Income taxes are of two varieties, business and personal income

taxes. The business income tax is a tribute which business may properly be called upon to pay for the protection afforded by the state and the opportunities provided to exploit the commercial opportunities of a given district. Business income taxes accordingly should be paid at the source, where the income arises, and should go to the tax jurisdiction in which the income arises—not the jurisdiction in which the recipient of the income resides. Personal income taxes, on the other hand, are paid for the benefits which the individual receives from the state as a consumer, for the streets on which he walks, the parks in which he takes his recreation, the schools which his children enjoy, the personal protection which he and his family receive from the police, the health commissioner, and other officials. Personal income taxes should be adjusted to the entire ability of the taxpayer, and should be paid to the jurisdiction in which he resides. A state legislature levying a business income tax may properly tax every dollar of income arising in the state, whatever its ultimate destination. The state legislature levying a personal income tax may legitimately tax a resident on all his income, whatever its source. The legislature in question may levy the business tax alone, in which case it should keep its hands off mere residents and abstain from taxing income arising outside the state; or it may levy the personal income tax alone, in which case it should keep its hands off mere business and abandon all taxes on income arising in the state but accruing to non-residents; or it may levy both kinds of taxes, in which case it may tax both species of income without injustice and without inconsistency. Either principle or both principles may be applied and no difficulty will result so long as the application is consistent and thorough. Evil results when the legislature tries to juggle the two principles to its own advantage, taxing only once those citizens who both reside in the state and earn all their income there, but endeavoring in addition to tax those non-residents who draw an income from the jurisdiction in question.

Fortunately for my contention at this point, but unfortunately for the practice of taxation, the difficulty now under discussion applies to the general property tax, the inheritance tax, and many other forms of direct taxation. The introduction of a state income tax would make the situation neither better nor worse. There is much double taxation of an inequitable kind at present. It arises from legislative greed and confusion concern-

ing the difference between real and personal taxation. It can be remedied in two ways: (a) by a constitutional amendment empowering the federal government to control the assessment of direct taxes by the states; or (b) by a process of education which will lift state legislatures above the greed and confusion which are responsible for the present situation. I do not believe that we shall ever get the constitutional amendment, and I do believe that on this point our legislatures can be educated. In point of fact, it is probable that the income tax, because of the earnest discussion that would almost necessarily attend its introduction, would materially assist in the helpful educational process on this subject which is now going on. In any event, it is hard to see how the reproach of double taxation can be consistently urged against state income taxation, when we remember that such a tax is proposed as a substitute for the present tax on personal property and it is the tax or taxes on personal property which are responsible for most of the double taxation that now exists.

4. Much the same attitude, it would seem, must be taken toward the criticism voiced by high authority that state taxation of incomes would lead to the migration of capital and impel the wealthy citizens of states employing such taxes to take up their residences elsewhere. European experience in the smaller continental states does not justify such apprehension. One occasionally finds in the literature on the subject some casual reference to such danger, but the general absence of this reproach in European discussion warrants the inference that it is not a real defect of the lump-sum income tax common on the Continent.

I am perfectly willing to confess here, as in other aspects of this subject, that European experience is not conclusive. But it is difficult to see any logical ground for the fear that income taxation would cause a migration of the millionaires. A state income tax, if introduced, would take the place of existing taxes on personal property. The amounts raised by the income tax would be subtracted from the general property tax, thus lowering its rates. I can see no reason why desirable citizens should withdraw under such circumstances and seek a new environment in which the general tax burden would be just as heavy and where in addition they would be pestered with the personal property tax, a form of taxation which is always disagreeable and which not infrequently forces the taxpayer to resort to what, in a strict construction of the law, must be regarded as perjury.

5. As stated above, it must be confessed that the success of the lump-sum income tax on the continent of Europe does not prove that such taxation could be made to work in this country. But for similar reasons it must be insisted that American experience with the state income tax furnishes no conclusive argument against its practicability. In his valuable work entitled "*Income Taxation*", Mr. K. K. Kennan concludes a discussion of the Massachusetts income tax in these words: "On the whole it must be conceded that the experiences of the State of Massachusetts in attempting to tax incomes, in spite of the fact that those experiences extend over so long a period, are of such a character that they form no proper basis for an argument either for or against state taxation of incomes."³ That verdict, in my opinion, must be passed upon the general experience with state income taxes in this country. The laws themselves are in many instances absurd on their face; in other states the heart is taken from the whole project by exempting from income taxation all income arising from property taxed under the property taxes, thus leaving practically nothing for the income tax to reach; in still other states a fairly reasonable law has been left to enforce itself and no real effort has been made to meet the administrative problems involved; while these states in which some little effort at enforcement really has been made are primarily agricultural states, in which, as I shall show hereafter, income taxation is least needed and most difficult of enforcement. We have merely played at state income taxation in this country; we have never given it a fair trial.

Many students will conclude from this that we are administratively incapable of giving it a fair trial, and there is much to be said for this view. It is probably not true, however, for all parts of this country. As a people we are going to do some things in the near future which we have unsuccessfully tried to do for generations. We are going to suppress lynching in my opinion; we are going to reform—substantially if not perfectly—the antiquated tax on personal property; and it is not at all impossible that in some places the removal of the personal property tax will be followed by a fairly successful local income tax. The scholars of this country may be economic determinists, but the people are not.

³ K. K. Kennan, *Income Taxation*, p. 222.

6. Success in taxation, of course, demands as a condition precedent good administration. But, it will be urged, if you have good administration you can enforce almost any tax, even the general property tax. This criticism is in my opinion unsound. There are some fiscal tasks beyond the powers of any American administrative machine, however good, which we have any legitimate reason to hope for in the next fifty years. One of these tasks is the detection and accurate appraisal of all forms of personal property. The property tax does not lend itself to lump-sum assessment. Its logic requires that property shall be listed and separately appraised. The tax is on the thing. The income tax does lend itself to lump-sum appraisal. Finally, income may be approximated much more successfully from external indicia than property. The dwelling of an individual and his general mode of life tell a great deal about his income. They tell almost nothing about the property to which he possesses the title, and which may in the greater part be covered by indebtedness for which the tax law entitles him to no exemption. A reasonably complete enumeration and appraisal of personal property at the residence of its owner seem to me impossible; but a reasonably complete enumeration and appraisal of incomes to their recipients, appeals to me as distinctly practicable.

II

A state income tax properly devised compares favorably with any of the proposed substitutes for the tax on personal property.

1. The first alternative plan of reform which must be considered is the attractively simple scheme of abolishing the tax on personal property, leaving the necessary revenue to be raised by a single tax on real estate, or upon real estate plus a few simple forms of tangible personalty. It is impossible here and now to give to the single tax as thorough a discussion as it deserves, and it will be necessary to state rather categorically the reasons why in my opinion it does not offer a practicable method of reforming the general property tax.

(a) The first of these reasons is the unwearied persistence of the people in their demand for some form of personal taxation. Nowhere in the world over a large territory within my knowledge is there any sign of the abandonment of the principle that men owe a personal fiscal allegiance to the state and that they ought

to pay some taxes in the district in which they live, whether they possess any property in that district or not. In New York City, perhaps, and a few similar places, personal taxation may be abandoned in the next fifty years, but in such event there will still be room for the income tax in the taxation of business.

(b) In the minds of a majority of the people in most communities land is too heavily taxed at the present time; and I agree with popular opinion in the belief that to a certain extent the taxation of real estate increases rent and real estate values. I realize that good economic theory justifies the conclusion that a tax on land is not shifted, but this applies only to "land" as that word is used in economic theory, that is, to those elements of real estate that are durable and not capable of multiplication. Accordingly, the theory of the single tax does not apply to buildings, nor to any part of the value of urban real estate which is created by the investment of capital or labor, nor to the fertility of agricultural land which is neither durable nor incapable of reproduction.

(c) To the extent that the value of land is reduced by special taxation it involves an expropriation of the present owners. If the tax promises to increase, it involves a further degree of expropriation. Such expropriation may be just or unjust; it is not necessary to decide that question here. The important point for us at the present time is that no such measure of expropriation has a chance of acceptance by the people of this country in the near future. Fortunately or unfortunately, the abolition of all taxation upon property other than real estate at the present time in this country is not a practicable project of reform.

2. The second substitute for the taxation of personal property presents a twofold aspect. It proposes the habitation tax in lieu of the present taxation of household goods and purely personal property, and the rental tax or the graded license tax in lieu of taxes on the machinery and stock, credits and other personal property of manufacturers, merchants, and other business men. The fundamental idea underlying these taxes is the same. The ideal is to adjust the tax burden to income, but to measure income by certain external indicia which are supposed to simplify indefinitely the work and responsibility of both the assessor and the taxpayer.

(a) The Habitation Tax. The weakness of the habitation tax lies on the surface. The richest man in a city in which I

once lived, for instance, resided in a single room in a cheap hotel. To have used the rental value of his habitation as a measure of his ability or *taxability* (to coin a convenient word) would have been obviously absurd. Of course this extreme illustration is not wholly fair to the real virtues of the habitation tax. But the illustration does arouse a train of thought which is valuable in this connection. Why rest content with rental value as an evidence of income when we know it is misleading? Why not use the habitation tax as a minimum to be indefinitely improved by any additional evidence which the assessor can secure? In short, why not have an income tax which is operative as a habitation tax when the assessor is doubtful of the returns of the individual taxpayer?

I believe that the future will see in American state taxation an ever increasing use of external indicia. But attention should be called to the fact that these external evidences can be far more successfully employed by administrators than by legislators. The relation between income and rental is at best a relation between types, and holds not for individuals but for averages. Moreover, the relation changes with the time, the place, and the circumstances of the taxpayer. An instrument so delicate and variable is not likely to be wisely handled by a busy state legislature. If enacted into statute law, it must be stated so simply and rigidly that it will work a vast amount of unnecessary injustice. If, however, it could be applied by a first class tax commission capable of investigating the different relations between income and the external index at different times and different places, it would be capable of an indefinite amount of good. My proposal, in other words, is to place the administration of the income tax in the hands of a central tax commission, and authorize that commission to devise and apply all helpful kinds of external indicia in the assessment of incomes when the commission has reason to believe the return of the income has not been honestly made. Some such procedure as this is what we are now as a people attempting in the introduction of rate regulation. That is to say, we are organizing expert central commissions and charging them with the duty of enforcing "just and reasonable rates." We know that the ideal is impossible of complete realization, but we confidently expect an approximate realization of the ideal. A central tax commission could, in matters of taxation, attack this problem of taxation with as much chance of success as our

public service commissions are attacking the intrinsically far more difficult problems of rate regulation. Such a commission can safely be vested with an administrative discretion in the use of external indicia, which could not be entrusted to ordinary local assessors. Moreover, business men would be far more willing to make disclosures to the agents of such a central commission than to local assessors under no central control.

(b) Business Taxes. Very similar arguments can be cited against the taxes most frequently proposed as substitutes for that part of the general property tax which is applicable to business concerns.

A flat license tax with little or no adjustment to profits is or may be highly productive, certain, and inexpensive to collect. But it is so regressive that it stands practically no chance of adoption in states north of the Mason and Dixon line.

The moment we depart from flat rates, however, we get into trouble. Immediately there begins a differentiation or classification in accordance with character of business, size of town in which the business is located, gross profits, and other indications of *taxability*, which has no logical stopping place short of an income tax. And the process of evolution is not a seductive one. First there comes the logrolling in the legislature and pressure from various commercial interests to obtain a favorable status in the law itself. After the law is passed, the assessor has a continual struggle with the taxpayer to get him properly classified. Some experience in Porto Rico with a graded license tax modeled closely on the French *impôt des patentes* led me to the conclusion that the proper classification of business concerns in the assessment of a finely graded license tax is as difficult as, or more difficult than, their proper assessment under an income tax. And the experience of Louisiana with the graded license tax is apparently similar to that of Porto Rico, as the Louisiana Tax Commission of 1906 (reporting in 1908) after going on record "as opposed to the principle of license or occupation taxes on ordinary pursuits as a permanent source of revenue", went on to say regarding the operation of the tax: "In addition to this there is no form of tax which provokes such a flood of perjury as accompanies the levy and collection of these taxes. The amount of the tax depends on the return of the taxpayer. The honest taxpayer makes an honest return. The dishonest taxpayer makes a dishonest return. Large numbers of persons make their affidavits with the

same looseness of morals with which the average respectable citizen will attempt to defeat the customs laws on returning from a trip abroad. They regard cheating the government as venial, and not in the category of crimes."

In Canada business concerns are quite generally taxed in accordance with the rental value of the premises which they occupy or the floor surface of such premises. In some of the provinces these methods of taxation have been consciously introduced as substitutes for preëxisting taxes on personal property. In the case of the Canadian taxes just described, as in the case of most other foreign taxes, it is difficult for the outsider to ascertain with any certainty just how successfully they work. It may be said with certainty, however, that these taxes are far superior to the American method of taxing the personal property of business enterprises. But from all I can learn, they are not without serious defects. They create exceedingly difficult questions of classification, because the rental value or the floor space bears an entirely different relation to net income among the different classes of business enterprises, and the rates have to be adjusted accordingly. In consequence the legislative body which imposes such taxation is constantly beset with applications for changes in the classification, while at the same time a certain amount of plain injustice always exists because of the impossibility of adjusting any simple classification to the varying ability of business concerns.

Here, again, it may be asked, why take the half loaf when we can get three quarters or four fifths? Why not develop these external indicia by scientific study and use them administratively as an aid in the assessment work, rather than enact an unduly simple and regressive scale into statute law? Of course, all this assumes much better assessors than we now have; but, unless we get better assessors, any scheme of reform is doomed. As will be seen hereafter, I am counting upon administrative reform as the principal recommendation of the income tax. I would much rather have a reform of the assessment work without the income tax, than the income tax without reform of the machinery of assessment.

3. The next reform which calls for careful consideration is what Professor Bullock has aptly called the "graded property tax." The essential proposal here is to reduce rates upon each class of property until the natural inclination to be honest

balances and then overcomes the temptation to evade the tax. This plan of reducing rates has been tried with very successful results, so far as the yield of the tax is concerned, in Pennsylvania and Baltimore.

All students of American taxation must feel deeply grateful to the champions of this reform in Pennsylvania and Maryland. It has taught us the exceedingly important lesson that a tax which is exorbitant can not succeed in an American commonwealth unless the property upon which it falls is tangible and irremovable. It has taught us, also, that there are large numbers of American taxpayers who will be honest if the state gives them half a chance. But its principal lesson may be summed up in the axiom that tax rates, like railway rates, must be fair and reasonable if the tax is to succeed. So deeply do I feel that this lesson should be taken to heart that I do not hesitate to say that the success of the income tax or any other reform project is wholly dependent upon its thoroughgoing adherence to this rule that tax rates must be fair and reasonable. Observance of this rule, in my opinion, is the principal explanation of the success of the lump-sum income tax in certain states on the continent of Europe.

But the graded property tax has, I fear, certain difficulties which would make it unpopular with the American people, and which to my mind make it inferior to the income tax. The difficulty lies in the fact that it provides no means of reaching the dishonest taxpayer, who will evade small reasonable taxes as well as high and unreasonable taxes. Notwithstanding the very large amounts of intangible personalty on the tax rolls of Pennsylvania and the city of Baltimore, it is probably true that many owners of intangible personalty in these places successfully evade taxation. The graded property tax, therefore, will relieve the treasury, but it will not remove the unfair burden upon the honest taxpayer. As a matter of fact, it actually increases the burden upon those taxpayers who are inclined to be reasonably honest. The form of income tax which I have recommended, however, would permit the taxation of those persons who are not disposed to make an honest declaration of income on the basis of any external indicia which the central assessment commission finds helpful in this connection. In other words, the income tax is easier to assess than that part of the property tax which falls upon intangible personalty.

4. In concluding this brief survey of the popular substitutes for the personal property tax, I am glad to confess that any one of them is greatly preferable to the personal property tax. But the income tax offers a more practicable substitute. My reasons for this conclusion have only been stated in part. These further considerations may be added:

(a) Most important of all is the fact that the income tax is popular. The people are familiar with it. There are things about it which thoughtful people do not like. But its spirit strikes a responsive note in the mind of almost everyone. The people, on the other hand, know practically nothing about the substitutes which are discussed so familiarly here, and I fear none of them would stand any chance of adoption until after a long period of public education. Moreover, the income tax is the goal, the ultimate ideal of the habitation tax, the business rental tax, the graded license tax, and the graded property tax. Why not start as near the goal as possible?

(b) Next in importance is the fact that an income tax will force a better administrative system, whereas the substitutes of which I have spoken seem designed from some viewpoints to pamper and coddle the weakness and inefficiency of the assessor. They all seem to be based upon this sort of reasoning, that, whereas the average American assessor is incompetent, therefore let us change our tax laws to fit his incompetence. Any tax which makes impossible demands upon the assessment machinery is, of course, bound to fail. But it is very important that the reform which we advocate should demand as its most fundamental condition the introduction of reasonable efficiency in the work of assessment. Of course there is no necessary reason why administrative reform should not accompany the introduction of these other substitutes for the personal property tax, and the economists who champion them usually insist that they would help to bring about administrative reform. But the average legislature, I fear, will find in these alternatives merely an excuse to amend the tax laws without rehabilitating the assessment machinery. In the case of the income tax, however, such procedure would be plainly suicidal. In the existing state of economic knowledge on the subject, any legislature which introduces an income tax without providing for fundamental administrative reforms as a condition of its introduction would be guilty on the face of political hypocrisy.

III

The conditions to which a successful income tax must conform.

I have already suggested in an anticipatory way the kind of income tax which might have a fair chance of success in a system of state taxation. It is necessary, however, to state these conditions more explicitly.

1. First of all, the income tax should not be applied to farming districts. Few farmers keep books; and few have any accurate notion of the money value of their incomes, because of the fact that their income consists in such large measure of the food which they themselves raise and of an intangible increase in the value of the land which they own. The average American legislature, moreover, is not likely to attempt to tax family incomes of less than \$1000 a year, and such an exemption limit would relieve a very large majority of farmers in most districts of the United States from taxation. The income tax, therefore, would degenerate into a mere instrument for increasing the share of state taxes borne by the urban districts; and, considering the excessive burdens thrust upon our cities by the mere growth of population, such a result would be doubly unfortunate. Moreover, real estate, farm animals, and farm machinery (all of which can be readily detected and easily assessed) cover so large a proportion of the wealth in farming districts that there seems to be no excuse for the introduction of an income tax, particularly when we remember that the assessment of such a tax would not only be unusually difficult but particularly expensive in the country. Finally, it should be added, certain investigations conducted under my direction into the relation between the net profits or income of farmers and the rental or capital value of their farms, indicate that this relation is exceedingly variable, so that an arbitrary measurement of income from capital or rental values, as is done in the English income tax, would work a large amount of injustice in this country.

2. It is obvious that the term state income tax as used in this paper is in one sense a misnomer. The tax should be confined to urban districts and its proceeds should be used for local purposes. It is a local rather than a state tax. Its assessment, however, should be under state control; the assessors should be appointed by a central tax commission, they should hold office during good behavior, and work under administrative regula-

tions laid down by the central commission. Whatever may be the value of home rule in general, it has little or no place, in my opinion, in the administration of tax laws. This is too large a question to be settled here,⁴ but it may be asserted with confidence that the path of improvement lies in the direction of greater centralization, more control both by the federal and the state governments.

At the present time important classes of corporations are in most states assessed by central tax commissions. In order to facilitate the assessors' work, such corporations render to those commissions detailed reports of their income and business operations. No great trouble has been experienced in securing such reports and no abuse has arisen in connection with the system. If an income tax is to be introduced applying to business concerns, wider use should be made of this method of assessment. Business concerns should be required to report to such a central commission not only the profits of the concern as a business unit, but the salaries received by its more highly paid employees and the dividends paid to such of its stockholders as reside within the state. These data could be used in the assessment of the personal income tax. This method of assessment has worked with the corporations, because they respect the power of the central commission, and because they trust it. They are certain that their reports will be treated as confidential. This method, in my opinion, can be successfully enlarged and made to work in the taxation of business generally. But if it is to be enlarged, it is exceedingly important that its essential character be preserved; the large force of agents or assessors which will be necessary must not be locally elected, but remain under the control and discipline of the central commission.

3. A third condition which impresses me as necessary is a thorough understanding of the distinction between personal and business income taxes. That there is such a distinction has already been emphasized. The further fact that these taxes are noticeably different needs some explanation.

The personal income tax which a man pays at his place of residence ought so far as possible to be measured by his ability, as reflected in his net income from whatever source derived, either

⁴I have discussed it more fully in *State and Local Taxation*, First National Conference under the auspices of the National Tax Association, pp. 515-527.

within or without the jurisdiction in which he lives; and, according to the preponderance of testimony, ought if practicable to be progressive. In addition, cognizance should be taken of the size of his family, sickness, death, and other misfortunes which tend to reduce his *taxability*. The personal income tax measures the human obligation of a man as a member of the body politic.

The business income tax, on the contrary, expresses the obligation which a successful business owes to the district whose commercial opportunities it is permitted to exploit. The income to be taxed in this case is not net income, but net income plus interest payments on bonds, and other forms of indebtedness which from this point of view must be logically regarded as interests in the business. Under a business tax, income arising in the jurisdiction may be taxed there whether the owner lives outside the jurisdiction or not. The rate, moreover, as I understand it, should not be progressive, inasmuch as a large business with large profits may be owned by a very large number of small stockholders whose separate share of the profits may be very small indeed. There are some arguments for progressive rating even in the business tax, but they do not impress me as sound and they create almost insoluble practical difficulties.

The danger of confusing the personal and business income tax is great, because of the custom of collecting personal income taxes at the business source. Whether the personal income tax is collected from the business or not, the fact remains that the personal tax is substantially different from the business tax and must be differently treated. Unless this truth is recognized, the ordinary legislative body is almost sure to fall into the unjust and demoralizing error of attempting to tax those residents whose income arises in the jurisdiction only once, while at the same time it attempts to tax other residents on their income arising outside the jurisdiction, and non-residents on that part of their income which arises within the jurisdiction. If all income arising in the jurisdiction is taxed under a business tax and all residents are assessed under a personal tax on income arising from every source, then those residents whose entire income is secured within the jurisdiction must also be taxed twice. There is only one just and practical rule in this connection: to so act that other jurisdictions may pass the same kind of tax laws without doing injustice to the ever growing class of citizens who live and work in different places. The same problem exists in property taxation.

It will never be solved until we have the dual system of personal and business taxes working side by side, because the only alternative permitted is an interstate agreement, and that will probably never be secured.

4. Finally, there should be included among the prerequisites of a successful state income tax, low rates and the abolition of nearly all taxes upon personal property. Whatever be the requirements of ultimate justice in regard to progressive rating, any high degree of progressivity in the near future would probably prove fatal to the local income tax into which it was introduced. No income tax at the present time can violate the ethical standards of the great mass of persons who are called upon to pay the tax, and succeed. A progressive federal income tax might possibly be enforced against the will of the mass of people subject to it, but a state income tax could not.

IV

Political considerations

The reform of the general property tax is a problem of practical politics, and some brief reference to this aspect of the question is necessary. The one thought which there is time to consider is the fact—so I deem it—that if any reform of the general property tax worth while is to be achieved, it is necessary to appeal much more strongly than we have ever done to the deep and persistent feeling of the people for uniformity and equality and justice in taxation.

In spirit the general property tax represents an attempt to tax each man according to his ability as measured by his wealth in real and personal property. This attempt has failed—signally. American economists have been deeply impressed with this failure, so deeply impressed that they have not only agreed, substantially, in counseling the people to content themselves with certainty, simplicity, and administrative sanity in their tax laws; but they have appeared to lose sight for the moment of the persistent, century-old, unabated striving of the people for uniformity and equality in taxation. It is not impossible that the sentiments of the people here are sounder than the severely practical reasoning of the economists. I pass no judgment on that question and for the moment I am perfectly willing to laugh at this

sentiment with the cynics or enthuse over it with the sentimentalists. What I do maintain is this: first, that it is the part of wisdom to utilize this sentiment; and, second, that no substantial measure of reform will be achieved in many of our states until it is utilized.

To the first part of this thesis I anticipate no objection. Everyone will probably agree that it is expedient to utilize a popular feeling if it can be done by the proposal of laws that are both just and workable. There is surely no reason why the scientific student of politics should leave to the demagogue the advocacy of all those laws which have a chance of passage and without necessity confine himself to that which is unpopular and bizarre.

That it is necessary to utilize the popular feeling for uniformity and equality, needs some little discussion. The average taxpayer is a curious mixture of selfishness and altruism. First of all, perhaps, he is against anything that will increase the tax burden upon himself and his class. After that he is an earnest but rather superficial advocate of equality, uniformity, and justice.

Admitting for the sake of argument that the selfish feelings are the stronger feelings, it nevertheless seems demonstrable that no measure of reform worth while can be achieved by appealing to those feelings. Their net result is simply to maintain the *status quo*. Owing to the almost universal prevalence of under-assessment and evasion at the present time, every taxpayer is at once a victim and a beneficiary of lawbreaking, and reform is blocked because no man knows whether he gains more in the latter than he loses in the former capacity. Moreover, John Doe will do nothing to relieve the injustice under which Richard Roe is suffering, because John himself is smarting under some petty grievance of his own and because he knows of a score of other classes which are suffering greater injustice than that borne by Richard. Self interest merely ties our hands and we continue to welter in this slough of legislative indifference and administrative incompetence. We shall not arise from it until an appeal is made to our patriotism and our sense of justice, until we are brought to feel as a people that efficient democracy is the only kind of democracy worth while or permanently tenable. Consider what has been done with the coldly practical recommendations of our state tax commissions, sum up the practical results of the severely unsentimental plans of reform elaborated by our economists, be-

fore you decide that nowhere and under no circumstances can the income tax be of service in the reform of the general property tax.

The supreme desiderata in American taxation are the abolition of the tax on personal property and the improvement of the assessment work. These ends must doubtless be pursued differently in different parts of the United States. The method of attack suitable to New York City and the Atlantic seaboard is not likely to be the best method of attack in Wisconsin and the "insurgent" states of the Middle West. But in some of these states the ends which we seek are not unlikely to be accomplished through the instrumentality of the income tax. The tax is popular, the people want it, and to get it—if they are intelligently guided—they will sanction the administrative changes necessary to make it a success. It satisfies their ethical instincts and arouses their interest, when such projects as the single tax, the habitation tax, and the graded property tax leave them hostile or wholly indifferent.

American economists should not stand in the way of experiment with substitutes for the personal property tax, even the income tax. The present situation is so bad that we have everything to gain and nothing to lose by experimentation. According to an investigation made by the Wisconsin Tax Commission in a typical Wisconsin county, the intangible personalty of estates passing through the probate courts was assessed at only 3.31 per cent of its true value, and I see no reason to believe that intangible personalty is better assessed in the average American county. Surely the income tax could not result in such an utter failure.

In fact, it is probable that the assessment of incomes could be made even more satisfactorily than the assessment of real property at the present time. Few of the economists who hold real estate taxation up as the successful remnant of the American property tax realize how far from perfect the assessment of real estate now is. The Wisconsin Tax Commission conducts regular, systematic, and thorough investigations into the relation between the assessed and the true value of real estate in Wisconsin. From the data collected by the Commission, the following figures for a representative county, a representative but small city, and for nearly all the assessment districts of the state, indicate how irregular and uneven the assessment of real estate is in a state which is above rather than below the average in the character of its assessment work.

RATIO OF ASSESSED TO TRUE VALUE OF REAL ESTATE IN WISCONSIN
BY CLASSIFIED GROUPS.⁵

Ratio of Assessed to True Value	Averages for entire assess- ment districts	A representa- tive county	A small city
	Number of assessment districts	Number of parcels of real estate	Number of parcels of real estate
Under 20. per cent.	2	—	—
20 to 29.9 " "	18	10	6
30 to 39.9 " "	97	34	20
40 to 49.9 " "	294	44	28
50 to 59.9 " "	393	49	74
60 to 69.9 " "	371	31	71
70 to 79.9 " "	201	11	40
80 to 89.9 " "	68	11	35
90 to 99.9 " "	23	7	13
100 per cent and over	7	7	17
Total.....	1474	204	304

As was stated in the beginning, this paper is not primarily a defense of the income tax, but a plea to the economists of this country to pause and think once more of the possibilities of the local income tax before declaring flatly that its introduction would be unwise. It is possible that some may agree with me that under the conditions laid down in this paper a local income tax might be made to work. To such persons in particular it may be predicted with confidence that within a comparatively short time these conditions will be possible of fulfillment in some parts of this country. In many sections the people are nearly ready to abandon the tax on intangible personalty provided a substitute can be found which satisfies their sense of justice. The income tax does this. In some of these sections central tax commissions are already in existence empowered to make the assessment on certain forms of business enterprises, to investigate and correct defective assessments locally made, to remove inefficient assessors, and, in at least one state, to appoint assessors from the beginning and rigidly supervise their work. Are we to say to such states that a local income tax would be a

⁵ I am indebted to Mr. A. E. James, the Statistician of the Wisconsin Tax Commission, for these figures. The figures for the assessment districts are for the year 1905, those for the typical county for 1908, and for the small city for 1905 and 1906.

mistake and an absurdity? In the state of Wisconsin—which in its primary election law, its civil service requirements, its central tax commission, and its laws regulating railways and public utilities, has set a striking example of progressive legislation made sane and practicable—the people have by popular vote ratified a constitutional amendment permitting the introduction of an income tax and practically every party in the state has pledged itself to the introduction of such a tax. Here is a condition and not a hypothesis confronting us. What have the American economists to say to the people of Wisconsin?

THE EXTENT AND THE SIGNIFICANCE OF THE UNEARNED INCREMENT

H. J. DAVENPORT

It is important at the very threshold of this discussion to make clear that, in a competitive economic order, private gain has no necessary reference to social service, and private capital no necessary relation to social productivity. Here, indeed, as often elsewhere in doctrinal analysis and in practical applications, right thinking upon the capital concept is fundamental to all the superstructure of theory and of practice.

The truth is that the essential nature of capital is not to be found in its significance as a factor of production in any technological or mechanical or industrial sense. It is not a category of machines and tools and appliances. Instrumental goods are capital truly, because, by virtue of their industrial function, they are gain-rendering to their owner—but they are capital solely by this title of gainfulness. That is to say, capital in the competitive business sense includes capital goods—instrumental goods or raw materials for production—but includes indefinitely more. These items of industrial equipment, these industrial appliances, are capital by the sole measure of their rendering a price gain. Price gain, pecuniary income, furnishes the test of capital quality and the degree and measure of it. Weight-and-tale productivity has no significance in the case excepting as an intermediate step to pecuniary return. And, in truth, even the most rigid adherents of the doctrine which confines capital to intermediate production goods, include the ice in the ice house waiting for summer, cider aging to vinegar, wine acquiring bouquet and flavor: the price significance is growing with passing time. So, somehow, the merchant's stock of goods is commonly admitted to be capital, although not as a factor of production in any industrial or technological sense, but seemingly only as gain rendering to the owner. Capital is merely property controlling gain in time.

The truth is that the concept of that sort of productivity which underlies not merely interest, but wages and rent and profit, requires radical reconstruction. The term *productivity* is, in truth, unfortunate for the purpose. In a régime of competitive activity for private gain, private gainfulness is the only meaning that the term productivity can possibly bear—unless, indeed, the

thought passes over from an objective study of the phenomena to ethical appraisals. But surely the science of economics is not to be reconstructed with every change of opinion with regard to the social worth of an institution, or with regard to the ethical or dietetic merit of certain lines of consumption. There is not one economic doctrine for the German and a second for the prohibitionist, or one for the Yankee pie eater and another for the Mediterranean wine drinker. Economic theory does not follow styles in bonnets, or canons of artistic merit, or directions of religious enthusiasm.

That private acquisition rather than social service is at the heart of the productivity concept is readily made clear. For precisely as economic utility has no reference to piety or health or welfare but only to desire, so wealth includes all permanent products that, attracting desire, take on price. Cigarettes, whiskey, Peruna, hop bitters, mince pies, cavair, ribbons, watch fobs, and corsets, all are wealth. They are marketable at a price. It does not matter that each or all of these lines of consumption may be either extravagant or immoral or indigestible.

It therefore follows that all the agents and instruments employed in furnishing the things that bear a price are productive—teachers, preachers, actors, corset makers, corset factories, poison factories, prostitutes.

And not only is it true that the test of economic productivity is neither in the materiality of the product nor in the commendability of the contribution to the general store of salable goods; it is also true that there need be no product at all from the point of view of any social accountancy. Burglars' jimmies, sandbags, roulette tables, counterfeiting outfits, all are capital—not however in any technological aspect as mere tools or appliances or implements, but ultimately solely as an individual holding of property for individual gain.

And if burglars' tools are productive, so also is the burglar or highway robber. If the lawyer who wins cases that should not be won is a producer earning his wage, so likewise is the beggar upon the corner an earner of his pittance. It is, indeed, not rare that an entrepreneur hires beggars or pickpockets at a wage. Their wage is the proof of their productivity. Similarly, also, with the relation of the madam to the inmates of the dive. Productive in the same sense and by the same test is the writing of advertising misinformation, or the purveying of Town Topics

scandals and libels, or the various other forms of blackmail. The average political speaker for hire, the lobbyist, the pimp, and the procurer belong by the same right in the same classification. Each earns his wage according to his kind, in the sole and ultimate sense that he gets it. It does not matter for the purpose whether the wage is received for good practice or for malpractice, for making cloth or for making shoddy, for adulteration or for honest goods, for canned nutriment or for canned poison. That, socially viewed, certain gain-acquiring activities may be denounced as parasitic or as something worse, is not to the point. Parasitism is not a competitive category.

Acceptance of the fact that neither labor nor capital need eventuate either in a material result or in a good result, but only in a price-bearing result, must greatly modify the capital concept and greatly extend the capital category. Slaves rank as capital where slavery exists. To reduce to slavery half of a population might in itself amount to a doubling of the aggregate of wealth. Nothing follows as to the result upon aggregate welfare. Wealth and wealth have no necessary interdependence.

The growth of capital by growth of liens against men is widely illustrated in actual business. An increase in public war debts or an increase in private indebtedness as mere claims *in personam* is a growth of capital. A property right is merely a right of individual enjoyment and, therefore, a right of exclusion of others. It results that patent rights and franchises and monopolies are all capital, since they represent the right to collect revenue from others. Nor, again, is it to the purpose to inquire whether the right is or is not predation. Whatever wealth serves the acquisitive end is capital. Police permits to rob passers-by after midnight are capital. Legislative authority to rob importers both early and late is capital. Royal patents for tax-farming the peasantry are capital.

I would avoid any over-call upon your time in presenting these doctrinal axioms: I have elsewhere too much sinned in this regard. I desire at present merely to point out the application of this doctrine to our actual American society. A great part of the 110 billions of American wealth is made up of one form or another of capitalized privilege or of capitalized predation. If, indeed, our computations include all forms and manifestations of private claim and of private property in that to which no indi-

vidual can make good his private right of enjoyment, it is probably not going too far to assert that two thirds of the durable property bases of income in the country are nothing else than this capitalization of privilege or capitalization of predation. The market value of these non-social forms of capital is merely the present worth of the right to exact tribute from one's fellows or to plunder one's fellows. I put this fraction at two thirds admittedly as mere estimate. I claim no adequate basis in statistics and no authority as statistician—God forfend. Nor should I have great confidence in any statistical pronouncement on the question. But I think I can make the statement reasonably credible.

Note the facts as reported by the 1904 census: Out of the 107 billions of material wealth, $18\frac{1}{2}$ billions are reported as current products—clothing, personal ornaments, furniture, carriages. Of the remaining 89 billions, 2 billions are coin and bullion. Of the remaining 87 billions, 62 billions are land and improvements and 16 billions are accounted for as public utility corporations; 8 billions remain for live stock and industrial equipment. Our problem has, then, mostly to do with these 87 billions of social equipment—income-earning wealth in the ordinary sense. We find this total to divide into:

8 billions of non-transportation equipment

16 billions of public utility wealth

62 billions of land and improvements

How much, then, of this 87 billions of wealth is the capitalized bounty of nature or the capitalized expectation of unearned dividends?

Recalling that mines and water powers are included within the land category, that the ground values in cities like New York and Chicago are twice the improvement values, that four fifths of the farm values are land values, that seven twelfths of the real estate values for a group of states not including New York, Massachusetts, Illinois, and Pennsylvania are ground values, that the last tax report for Illinois gives the town and city lots as assessed at twenty-four times the farm values—it is probably conservative to say that over two thirds of the real estate wealth of the country is in ground values: here are 41 billions of unearned increment.

Estimating, also, the value of rights of way and user, and of terminals for the railroads and tramways, express companies,

telephone, electric light, and telegraph companies, it is probably not wide of the truth to say that one half of the 18 billion value of public service corporations represents merely social values. If there is overstatement here, it surely does not offset the liberality in the division of real estate values.

Here, then, are approximately 50 billions of unearned values out of a total of 87 billions. Five ninths of the durable wealth reported by the census is made up of privately appropriated social wealth.

The difficulty is, however, that the census returns have been constructed upon the basis of a viciously bad concept of capital. In the main, the totals represent a valuation of material tangible items of goods or of equipment. But as a question not of social wealth, but of the aggregate of private competitive wealth, the interrelations of human beings must be considered. If half the population of America became slaves, note again that 50 billions of wealth would forthwith be added to the wealth aggregate. In the mere item of public debts we have approximately 3 billions to be computed as private wealth against which no debit can be charged in the aggregate appraisal. These debts are merely the present worth of the private rights of some men to collect future taxes out of other men. Patents and franchises and privileges are all fundamentally of this same sort. In a general way, the common stocks of the later corporations are nothing more or less than the present worth of putative future dividends resting upon no basis of original investment. The Steel Corporation with its billion dollars of market value rests upon original properties of from 200 to 300 millions. The average earnings of 120 millions would support a valuation of 3 billions if only it were certain that this robbery can have no end. The dividend-earning capacity of the Booth Company supports a capitalization double that of its material assets. Sears, Roebuck and Company incorporated approximately 9 millions of tangible assets into the 9 millions of preferred stock and 30 millions of common stock: and this common stock is now selling at 180—sixty-three millions of private wealth against 10 millions of social wealth. Immunity from competition through protective tariffs, through combination, through franchises, and through patented processes, explains a vast total of private wealth of which the census takes practically no account. Even

the item of good will—a property claim not necessarily predatory in its basis—means commonly nothing more than the special ability of some particular corporation, for example, Sears, Roebuck and Company, to avoid the wastes of our prevailing system of retail merchandising. I conjecture—or guess—the aggregate private wealth of the country to be 150 billions of dollars, and I hazard the estimate that the 20 billions of real estate improvements, 10 billions of public utilities property, 20 billions of tangible personal property and of goods for consumption—a total of 50 billions—more than represent the earned wealth of the country as against a total private wealth three times as great.

The purpose here is not primarily to show how tragically inadequate is the single tax program interpreted as applying solely to unearned increments of land. So far at least as the single-taxers go, they emphasize a real evil. Nor is it a valid objection to their proposed remedy that there are other iniquities even more seriously demanding attention. Nor have I time at present to point out how unworkable is the single tax program, so far as it intends an appropriation of unearned increment through the machinery of the ad valorem tax. Nor shall I stop to prove that the application of the single tax principle to fertility rents is big with social danger. It is not even possible here to demonstrate the diminishing significance of these agricultural rents as over against the stupendously increasing importance of urban rents. I must content myself with noting that if improving transportation and improving agricultural appliances and improving methods and improving varieties of products all tend to the reduction of agricultural rents, they at the same time make enormously for the growth of urban rents. The land rent problem is not a problem of diminishing importance, but of enormously increasing importance—all on the urban side. The assessed value of the real estate on Manhattan Island exceeds the assessed value of all property in the United States, real and personal, urban and rural, west of the Mississippi River, inclusive of Minnesota and Louisiana.

Nor am I trying to indite any sort of socialistic screed, but simply to point out the significance of the unearned increment in its bearing upon the present distribution of wealth. Were society later to make as great a botch of socialism as it has thus far

made of competition, socialism would present the nightmare of all the ages. I want, for example, to point out, so far as I may, why the wage-earning classes of our cities are finding it increasingly difficult to get meat to eat and why, with the more unskilled of these, the Italians, for example, it is no longer possible for the wife and the wage-earning girls and the children to have any meat at all. And about all that I shall be able to do for the problem anyway is to get it stated and to get its terms into the proper theoretical relation to a really modern and workable concept of capital.

For we are to remember that, side by side with the want of the poor, our average standard of living is rising. We are to remember, also, that we are the richest nation of the world—not merely as measured by the colossal wealth of our very rich; not merely by the flamboyant expenditure and the crass ostentation of our great spenders; not merely, also, by the sheer common-placeness of great personal incomes and great property incomes—but also by the test of an extraordinarily high *per capita* productivity of consumable wealth.

The truth is that no nation of the world out of all the past and no other nation of the present can rank with present America either in opportunities or in accomplishment in wealth production. The average *per capita* product depends in part upon the quality of the human being and in part upon the quality of his environment. As speed in running is partly a matter of the runner and partly of the track, so the productive output is explained partly by the quality of the farmer and partly by the quality of his farm.

All this is merely one application of the great law of correspondence, the interplay between organism and environment. There are only these two ultimate forces in economic history, man and nature. If the Chinese have less *per capita* to consume than the French, it is because the Chinese produce less *per capita*. And the explanation for this must be found in the lower skill or vigor or energy or intelligence or scientific attainments of the Chinese, or in the crowded or otherwise unfavorable character of the habitat. If Americans live better than Europeans, it must be that the Americans are better producers—more active, more inventive, more enterprising—or that the soil and climate and other natural resources of America offer more favorable opportunities.

It is obvious that it is chiefly in intellectual power and intellectual acquirement that the modern man surpasses his progenitors in productive output. If we compare the modern industrial process with the methods of ancient times, we get some notion of the importance of science and art in production. Precisely here was the significance of the agricultural and industrial revolutions. Man has harnessed to his aid the forces of nature; has made levers out of the elemental energies. It is the chemist that grows most corn. Spindle and loom multiply the product by hundreds. Steam and electricity, the printing press, the cotton gin—all the countless inventions which make of every county fair a collection of marvels and of every world's exposition a display of miracles—these are the expression of that civilization into which each of us is born as to a free inheritance—excepting, of course, when even this field of scientific knowledge has been surveyed off into private holdings of patent and royalty. Even the dissemination of knowledge now divides its maximum toll between the paper trust and the type foundry association.

The highest product of modern science is in the industrial technique at the disposal of the modern man as productive agent. As most completely master of this technique, most intelligent in its application, most industrious, most enterprising, and most aggressive in its utilization, the Anglo-Saxon has made himself the leader in the industrial society of the new industrial era.

Consider all that this means for the American branch of the Anglo-Saxon race. Other nations have tediously worked out the problems of progress handicapped by their own inefficiency, under the harsh pressure of the subsistence limit, in environments either niggardly in the beginning or crowded by expanding population and exhausted by improvident use. Out of this long poverty there has finally emerged the modern civilization. And in these last days, equipped with all this racial heritage of technique, vigorous, energetic, and effective beyond all competing races, the Anglo-Saxon is now exploiting the almost inexhaustible wealth of the richest continent in the world—forests ready grown to his hand, limitless expanses of the most fertile land of the world cleared and ready for his plow, silver and gold in unexampled wealth, the main copper resources of the world, iron as dust to be shoveled from the surface of the earth, two thirds of the known coal resources of the world, and all, or nearly all, of the

natural gas and of the petroleum. We actually produce three fourths of the maize of the world, more wheat than any other country, one third of the oats, two thirds of the cotton, one half of the iron, one fourth of the gold, three sevenths of the lead, two fifths of the coal (and, exclusive of the United Kingdom, more than all the rest of the world combined), three fifths of the copper, one third of the zinc, three eighths of the aluminum.

That the fertility of the soil is being seriously depleted, the forests nearing exhaustion, the gas already nearly gone, the coal in prospect of exhaustion in 150 years, and the artesian water beginning to fail, does not matter to the problem. Nor does it concern the present analysis that every great white way in every American city is nightly one more chemical orgy of waste, a crime of competitive advertising, for which some day thousands of human beings must shiver for months. Our enormous production still goes on. It ought to represent itself in a generally high wage level. Instead of this, however, a goodly percentage of our laborers are close to the margin of starvation.

It is, indeed, an extraordinary outburst of productive achievement which we are witnessing—a combination of productive efficiency with favorable opportunity never paralleled in the past history of the race, and never to be duplicated again in all the years of the long future. No new continent is left to be opened. Modern science and virgin opportunity can never again concur.

These different cases of income, iniquitous in origin and productive of innumerable abominations, divide into three classes:

1. Where rent is collected upon a really productive item of property; where, therefore, the only question is as to the right of receipt of the income: capitalized bounty of nature.

2. Cases like franchises, where social productivity is absent but where rent to somebody is inevitable unless portions of the traffic are deliberately made unprofitable. No competitive extension of the traffic is practicable to cancel the rent: capitalized privilege.

3. Cases where profits express not merely the lack of social productivity, but an interference with social productivity by restriction of product or deterioration of product. These are not cases of a bad distribution of a social product, but of in-

comes dependent directly upon the degree in which social productivity is prevented: capitalized predation.

The single-taxer is thus fundamentally right in his declaration that public revenues should be derived so far as is possible from the social estates—from incomes not due to individual effort in the production of social service. Any system of taxation, no matter how scientific, is yet bad which has not first exhausted these sources of income before taxing any other.

But our present system is bad even without reference to this limitation. So far from taxing unjustifiable incomes equally with the justifiable, it places most of the burden upon the justifiable and exempts the unjustifiable. The difficulty is, then, not merely that 15 billion dollars worth of agricultural land has become private property, on which the millions of disinherited must pay rent and by virtue of which they become trespassers in the land of their birth; not merely, also, that untold millions of dollars in urban sites are now the source of landlord income; not merely that the coal mines belong to the coal barons, the copper to the senators, and the gold and silver mines to the other rich, the water powers to the syndicates; not merely that all sorts of franchises have fallen into private ownership, appropriating gains that should be social, and at the same time imposing monopolistic exactions,—but also that our tax system is directly adapted to aggravate all of these evils. In the main the revenues are collected upon the consumption of the incomes of those very classes that have been already grossly exploited in the distribution of that income. The poor are plundered as producers by monopolistic restrictions on production, and then are plundered again as consumers through consumption taxes upon that which has been produced. Wages that are inadequate at the best buy still less through the consumption taxes to which these wages are subjected. If, in truth, then, we either can not or will not disturb the vested rights already accrued in land wealth, and if we will not appropriate or cancel the franchise rents, and if we will not or dare not burden, by progressive taxation of some sort, the exercise of exploitation and the collection of tribute—if, that is to say, we have turned over even the tax function to private ownership—we might at least experiment awhile with serious inheritance taxes.

I should like after all to give to this discussion its essential theoretical significance. We economists have not rightly analyzed the notion of capital. We have failed to see that some of the capital is as iniquitous as other of the capital is beneficent. Noting that some of it is good, we have inferred that all of it is good. By our bad analysis, in our blindness to the distinction between social productivity and private productivity, between that which ethically is production and that which ethically is predation, we have stood as defenders of all.

And blind to this same distinction, we have advised, wherever finally we have become conscious that iniquity has been capitalized, that this sort of capital be subjected to no greater rates of burden than apply to the righteous sorts of capital. To the extent that we favor the general property tax at all, we favor taxing all private property at one rate. We shall, possibly, some day come to see that capital in a competitive society is merely a legal category of private property, and that private property may extend to everything that is permitted legally to render income to the owner of it. There needs, it seems, that some theoretical muckraking be done. The ostrich method of curing ills is foredoomed to failure.

TAXATION—DISCUSSION

E. R. A. SELIGMAN: I wish to express my appreciation of the admirable way in which Professor Adams has handled a difficult subject. I appreciate the fact that he is dealing with a local situation of some unusual difficulty and I have nothing but admiration for the way in which he has endeavored to handle the difficulty. And yet, notwithstanding all this, I cannot bring myself to believe that the scheme which he outlines is advisable for the country at large, or even, in the long run, for the State of Wisconsin. The reasons why I am opposed to state income taxes may be summarized as follows:¹

1. The narrower the base of the tax the more unsuccessful does an income tax become. In former times a local income tax was fairly workable, because incomes were local in character. In modern times the income of the taxpayer has little to do with the locality in which he happens to live. If, as every one concedes, a state income tax is preferable to a local income tax, it follows that a federal income tax would be still better than a state income tax. Any attempt to control national incomes by state methods does not promise much success.

2. In the second place, the conflicts of double taxation would be ever present. The combinations of multiple taxation by different tax jurisdiction are almost terrifying in their complexity. With more adequate administrative methods on the part of the states, the possibility might become a reality. In Germany state income taxes are possible because of the federal law governing the subject. In this country such a law does not and probably cannot exist.

3. The third consideration is that of administrative efficiency. Federal administration is far more effective than state administration. Not only is it easier to secure expert assistance for the larger problems involved in national affairs, but the contact between official and citizen is not so likely to have that unfortunate relationship which will exist in the smaller administrative sphere.

4. Finally, fourthly, the adoption of a state income tax would embarrass state finances. If the states took the income tax, the federal government would be likely to take the corporation and

¹ They are set forth in detail in Seligman, *Income Tax*, New York, 1911, pp. 642-58.

the inheritance taxes. The states which are working out the scheme of tax reform at present rely to a continually increasing extent on corporation and inheritance taxes. A state income tax, in view of the state general property tax, would thus check a salutary movement.

Any one of the above four arguments would in itself be sufficient. Taking them together, their cumulative force is overwhelming. Especially in the more advanced and industrial commonwealths a state income tax would be a step backward, not a step forward. If, however, under the name of the income tax we introduce what are either business taxes or house rental taxes, the situation is very different.

The real difficulty lies at another point. According to the arguments advanced above the income tax should be a federal tax; but from the point of view of revenue the income tax is needed for state and not for local purposes. Why would not a way out of the difficulty consist in having the tax levied and administered by the national government with an apportionment of the proceeds—to a large extent at least—to the various states, perhaps to be further apportioned to the localities? The method of federal administration and state and local apportionment is one that is familiar to students of public finance, but it has not yet been tried to any great extent in the United States. Some adjustment must be reached whereby the legitimate demands of equality and uniformity may be secured without sacrificing the ends of efficiency and adequacy. The interests of the states must at all costs be safeguarded; but the difficulties inherent in the state administration of what has become national in character must be avoided. I am afraid that Professor Adams has not taken a sufficiently long look ahead.

T. N. CARVER: With the general spirit and purpose of Professor Davenport's admirable paper, I am in complete sympathy. I think, however, that there are different ways of getting at the same result at which he aims. Instead of calling everything capital that is in any way a means of acquiring wealth, I should limit it to what he has called the technological instruments of production, or at least to material things, including perhaps dwelling houses that are rented for an income. But while I should include in the capital column only an inventory of such material, tangible forms of wealth, I should make another in-

ventory for the purpose of the theoretical economist; and in this other inventory, or this other column, I should set down opposite the names of the technological instruments, etc., the factors which enable the owners of the technological instruments to get income from them. In this column I should put down, for example, the disutility involved in waiting. This acts as a check upon the supply of these instruments of production, and gives them a higher marginal productivity than they would otherwise have; and this in turn gives them greater income-procuring capacity. Again, I should set down what Mr. Hawley has called the "irksomeness of risk" as another factor which limits the number of such instruments, or reduces the willingness of men to handle them. This again adds something to their income-procuring capacity. Then there are patent rights, trade secrets, and good will, which still further control or limit the supply of some of these technological instruments and give them a still higher income-procuring capacity. Finally, there are doubtless a great many fraudulent and unscrupulous practices by means of which the same owners mulct the public and still further increase their incomes.

It seems to me that this arrangement meets the requirements of the theoretical economist better than Professor Davenport's method of putting everything—technological instruments, trade secrets, and unscrupulous practices—all into the same category. His method seems to be putting very unlike things into the same class.

Now the question will next arise, which of these functions that give income-procuring capacity to the technological instruments may be regarded as productive or useful, and which not. Inasmuch as a certain amount of waiting is absolutely essential in order that the world may be supplied with tools, and inasmuch as men do not as a rule like to wait, it seems to me that we should have to agree that that part of the income which is due to that necessity of waiting may be regarded as earned. Similarly with the taking of risk: as to whether patent rights, trade secrets, good will, etc., are productive or useful, and entitle the owner to an income, may be open to discussion. I should think that it would have to be decided independently in each individual case, with the burden of proof on the shoulders of him who denies that the income from these sources is earned.

Of course all unscrupulous and fraudulent methods of business

are not only unproductive, but are positively destructive. Income secured by these means is not only unearned; it is stolen. There are many ways of classifying wealth, but from this point of view we may logically divide wealth into three classes: earnings, stealings, and findings. Incomes secured by these fraudulent methods are stolen. The attitude of the state should be one of complete hostility; there should be no compromise. All such incomes should be prevented or prohibited. On the subject of findings, however, it seems that there must be a compromise. The unearned increment of land, and inherited wealth, are the two most conspicuous examples of this kind of wealth. Though such wealth is not strictly earned, it is entirely false to say that it is stolen. It is like finding wealth; it is wealth which comes to one in a perfectly open, legal manner, recognized and approved by all modern states, and in fact by all civilized society. Only such wealth as may be classified as findings, it seems to me, is fit to be made a special subject of taxation. Stealings, as before intimated, are not fit subjects for taxation; they should be prohibited altogether. But inherited wealth, and the unearned increment of land, may very well be made special subjects of taxation; for the reason that taxes may be raised from these sources without really disturbing or repressing any productive industry. From a purely economic point of view, such taxes conform to the rule of imposing the least possible burden by means of taxation. Tax the products of industry, and you not only tax the payer but you repress industry. Tax these forms of unearned wealth, and you burden the payer, it is true, but you do not repress industry. There is, therefore, less burden imposed upon the community by this form of tax.

H. A. MILLIS: Professor Adams's paper is very interesting and unusually suggestive. It contains a great many things which appeal to me very strongly. The relativity of things is made to stand out clearly. Great emphasis is very properly placed upon the machinery used in the administration of a tax system. The fact is realized that the possibilities of an income tax depend largely upon the details of the law, the details of the administrative system, and the popularity of the tax itself. With all of this and much more contained in the paper I heartily agree.

Professor Adams makes "a plea to the economists of this country to cease declaring flatly that a state income tax is impossible and to formulate the conditions which must be fulfilled to make the

state income tax practicable." He has in mind certain measures and administrative methods which he believes would effect an improvement in the systems now employed in state and local taxation systems in which the general property tax occupies a dominant position. While agreeing with most of what Professor Adams has said and with his assumption that our present systems are very faulty, I wish in the few moments at my disposal merely to point out some difficulties which his scheme—in so far as he has outlined it—has not overcome.

In the first place, Professor Adams would exempt from taxation all intangible and a part of tangible personal property. In the second place, he would introduce income taxes levied under a state law, upon assessments made by local officers appointed by and responsible to a state tax commission, the rates imposed being low and prescribed by the state law. His argument calls for (1) a tax upon the incomes derived from business conducted in urban communities and presumably of a local character, without regard to the place of residence of those who share these incomes; and (2) a tax upon the entire incomes of those who reside in these urban communities, without regard to the sources from which their incomes are drawn. The habitation tax would be used as a minimum in assessing personal incomes; no doubt external indicia would be employed in assessing incomes from local business as well.

These two taxes Professor Adams advocates to make good the losses from the exemptions of personal property and to add to the revenues of the treasury, and to make for greater justice in taxation. They are preferred very properly to heavier taxes upon real estate as it is now taxed. They are also preferred to differential rates upon certain kinds of personal property, and such business or occupation license taxes as are now employed in the United States, the Canadian provinces, and many of the European countries.

In passing I may state that I fail to see why the income tax should be regarded as a substitute for the low rates placed upon a few kinds of personal property, as in Maryland, Pennsylvania, and Connecticut, unless the total of the two taxes should become greater than the traffic will bear. Logically, it seems to me that his suggested business income tax should be regarded as a substitute for business taxes levied in lump sums or graded according to gross earnings, as in Louisiana, according to space occupied or rental values of the premises used or otherwise,

while his personal income tax should be regarded as a substitute for the local habitation tax, or a federal income tax.

Professor Adams advocates the net earnings business tax because net earnings indicate ability, while gross earnings, rental values, etc., do not. All of his adverse criticism of such business taxes as are now employed on this continent is well merited. Yet I do not believe that the substitution of a net earnings base would effect an improvement. In the first place, taxpayers do not care to let their profits from specific business enterprises of a local competitive character become known; yet it would not do to keep the records of assessments and of taxes paid secret were it possible to do so. In the second place, in spite of the great improvement which is still possible in administrative methods, the opportunities for fraud and evasion would be too great and corruption would probably follow the introduction of a local net earnings tax. The appeal to the success of our various commissions in dealing with corporation accounts and corporate values carries little weight here, for these state officers have usually not been assessing net incomes for the purpose of taxation. Moreover, the problem of assessing shopkeepers and small business men generally is a difficult one, and one which offers more ways and greater inducement for evasion. It is interesting to note in a few instances in the southern states that rough business license taxes have been substituted for the income tax, because they were more definite and would work. That the delegates to the last Constitutional Convention in Louisiana eliminated the income tax long used for both state and local purposes and retained the business tax levied according to gross earnings, is not without point in spite of the fact that the latter tax is unsatisfactory and has recently been severely criticised. The Province of Ontario introduced a business tax based upon rentals a few years ago and restricted the income tax which had been more or less of a farce. Say what you will, net earnings are in most cases difficult for the *assessor* to estimate, though, as asserted in the paper, they may be easily enough reckoned by the business man, who must pay the taxes or evade them. My own feeling is that the net earnings business tax would not prove successful here, though in a modified form and under different circumstances it has proved so in Prussia. In most instances, without minima based upon tangible facts, assuming such administrative machinery as we can expect to develop, a net earnings tax would probably be a farce.

With minima established, the income feature would soon disappear and we should have a system based upon external indicia employed at the discretion of the assessors. With our attitude toward government and with all the difficulties involved, it is believed that the Ontario system of business taxes based upon rentals, with all its shortcomings, is more satisfactory than any system would be, based upon net income.

As to the personal income tax, which rests upon a different argument, several of our commonwealths have tried it without much success. We must agree with Professor Adams, however, that this failure signifies little or nothing with reference to the possibilities of an income tax levied under a law properly framed and enforced, rather than put in the form of a slight supplement to the general property tax, as it usually has been, and left to the local assessors to apply as they pleased or to ignore. Professor Adams's tax would have an independent position and it would be somebody's business to enforce it. Moreover, a strong central commission would render the local assessors and the public the great assistance which would be within its power. Use would be made of records of dividends, of interest payments, etc. Finally, the habitation tax is suggested to establish minima. All of these features are new and would doubtless cause the personal income tax to work much more successfully or much less unsuccessfully than it has in the past. Moreover, as we became accustomed to the tax, it might be more favorably regarded and the administration might become less difficult, as has been the case in Great Britain. Such an income tax could not be worse than the best habitation tax and would be much better than a poor one. It is in point to note that in France the habitation tax has generally not been imposed as provided by law, but as the assessors saw fit in their efforts to improve upon the law and eliminate some of the great injustices which would otherwise be involved. Yet, with the education we have had in tax evasion, with the slight use which can be made of stoppage at the source, with deductions and allowances which must be made to ascertain taxable income, it is doubtful whether justice would be more nearly attained than with a reasonable business tax, a heavy inheritance tax, good corporation taxes, and the taxation of the unearned increment in its various forms, without an income tax. It should be pointed out also, that the specific measure advocated by Professor Adams offers unusual facility for evasion in that it is

not to be employed in agricultural districts. With most kinds of personal property not subjected to taxation, it seems to me that every inducement, even with a low tax rate, would be given to persons whose incomes are large, to migrate to a country place, for presumably nearly all of their tangible and taxable property would retain its situs unchanged.

If an income tax is to be employed, it seems to me that it should be employed by the federal government. The federal government needs the revenue in case of emergency. The revenue could be used in reforming the customs system. Moreover, though the federal government is farther removed from the citizen and a federal income tax would appeal less to the taxpayer than one used by a state or local government, it can employ stoppage at the source more extensively. Finally, state income taxes would lead to migration from jurisdiction to jurisdiction just as the taxation of personal property has. Professor Adams's contention that there would be insufficient motive is not well taken, for the reduced rate of the property tax to which he refers would still apply to most tangible property left behind when a residence was changed, and if the income tax really amounted to anything its burden would undoubtedly be greater than the tax imposed upon any personal property actually assessed at a new residence gained. The income tax is for these reasons preferably a federal tax. Nor can it well serve as a source of both federal and state revenue without either causing the rates to become too high, or the receipts to be fiscally unimportant.

In expressing the opinion that the income tax (as distinguished from a business tax) is preferably a source of federal revenue, I would not be understood as advocating its use by the federal government at the present time. The federal government should have the power to employ it in emergencies. Until our conditions change materially, however, I am of the opinion that justice in taxation will be more nearly realized in other ways; and certainly revenue for the ordinary needs of the federal, state, and local treasuries can be secured with more certain results from taxes presenting fewer administrative difficulties.

MAURICE H. ROBINSON: It does not need argument to prove the feasibility of a tax on unimproved land values, when considered from the practical point of view. Land is valued for commercial purposes in the real estate market every day in many

cities and in many countries. It is also being valued by public authorities for purposes of taxation in several countries with a degree of accuracy that has been found impossible in many other lines of properties. If such taxation is unconstitutional, even constitutions may be changed whenever public opinion demands.

The question of land taxation then may be considered upon its merits, that is, its effects upon the social welfare. It is often affirmed, that the land is the free inheritance of society, and, therefore, that its income as such belongs to all in their associated capacity. That this was the original condition may be admitted without in any way affecting the assertion that such is not the condition today. Almost without exception the larger proportion of the land originally held by the government has been transferred to individuals, with one reservation only, namely, the right to take a portion for public uses, or all on proper compensation. Without breaking faith with the present holders, therefore, the unearned increment accumulated in the past, must be left in private hands. No guarantee has, however, ever been made that the present proprietors may remain in possession of the future unearned increment. Why, then, should they be permitted to reap, it is asked, where they have not sown.

It may be observed, in the first place, that a portion of the rental value of land is due, not to locations or to intrinsic fertility, but to certain conditions contributed by those who are living in the particular locality. Such value, while socially created, is not created by the city as a political unit, or by the state. To whom, then, should the income accrue?

In the second place, an increase in land values may be caused either by the increase in population within certain limits, as, for example, New York City, or by an influx of population from outside the boundary. In the former case, the enhanced value from the economic standpoint belongs to the city. In the latter case, before the city can justly claim the increase in value, it must compensate those other communities that suffer a corresponding loss. The above cases are cited not to prove that the taxation of land values to the full extent of the annual increment is undesirable, but to show that such action must be justified, if at all, upon social rather than economic grounds. When the problem is considered in this light, certain questions arise of which the following are particularly relevant.

1. If the annual increment in land values is taken annually by

society, shall the unearned increment in other lines be permitted to remain in private hands?

I shall pass over this point with the observation that while I am unable to agree with Professor Davenport's conclusions as to the extent of the unearned increment in other fields, I see no reason for taking one class and omitting the others, provided they are all equally permanent.

2. If confined to land values, should the increase in all values be taken or only those arising from superior location?

Agricultural land in this country is, as is well known, generally held by those who cultivate it, while city land on the other hand is quite generally owned by absentee proprietors. As a result, the economic rent of agricultural lands is being fairly evenly distributed among the agricultural population. If owing to fundamental economic laws or unwise social regulation the bulk of the agricultural lands show a tendency to become concentrated in the hands of a few, a new problem will arise, which may well be left for the future to solve.

In the second place, it is now generally recognized that soil, contrary to the opinion formerly held, is subject to rapid deterioration and rapid exhaustion, unless the constituent elements taken by the crops are replaced by some form of plant food. The owner who cultivates his own land has every incentive to maintain its fertility. The renter, unless actuated by higher social ideals than those which usually prevail, has an even stronger incentive to wear the soil out within the period during which he occupies it. Location values, on the other hand, are not subject to this kind of depreciation, and consequently their taxation would not result in the waste of the social capital.

In addition to the location and soil values, there is a third division of great importance, namely, the mineral deposits. Owing to their adventitious character and the fact that they can be successfully exploited only by large aggregations of capital, mineral wealth, above all other objects, is a fitting subject for public ownership or taxation to the full extent of the unearned increment.

3. Shall all the increased value thus arising be taken annually by the state, or shall it become a joint landlord with private owner?

It may be found well worth the while of theorists and of the public authorities to consider the profit sharing principle in this

connection. Society as a whole has a large share in creating the so-called unearned increment in land values. On the other hand, the intelligent utilization by individuals of both location and fertility value, is a factor not to be neglected. A sharing of the annual income arising from these sources may prove of large practical importance in solving this problem, by giving the state a larger income to use for educational and other purposes, while at the same time furnishing a sufficient incentive for maintaining a widely diffused individual ownership in land.

4. And finally, may not the state, by social regulation, universal education, improvements in transportation facilities, sanitary and housing conditions, and possibly the limitation of the amount of land that may be held by one individual or one organization, together with the policy of assisting individuals to become proprietors of a small portion of the land, accomplish the objects aimed at by the advocates of land nationalism, without assuming burdens that seem impracticable, if not impossible, under present social, economic, and educational conditions?

The field of social regulation, of public education, and improvements in transportation facilities in the interests of social welfare, is as yet, almost untouched. Every improvement in transportation, whereby persons and products are more cheaply and more expeditiously moved from place to place, is a powerful force in leveling location values, and thus diminishing the unearned increment arising from this source. A system of universal education would destroy many kinds of the predatory unearned increment. The improvement of public health and of public sanitation would in themselves remove many others; and consequently, with an enlightened and healthy citizenship, social regulation would have a much less serious problem than under present conditions.

The above considerations, together with others of equal significance which might be added, lead to the following conclusions:

1. No program of economic reform founded upon the basis of sharing the unearned increment, arising from ignorance, helplessness, fraud and treachery, unsanitary conditions of a public nature, special privileges not granted by the state, monopolies, etc., between the recipients and the state through taxation, can for a moment be defended from either the economic or the moral point of view.

2. Wherever the unearned increment is due to permanent and

fundamental natural and social conditions—as, for example, mineral deposits, locations, and the like—some form of taxation, or more exactly joint landlordship, is not only advisable from the viewpoint of public revenue but is indispensable for the purpose of preserving even a reasonable standard of equity in distribution.

R. B. BRINSMADE: I wish first to pay a tribute to the frank and very able paper of Professor Davenport. I only wish that his paper, along with the supplemental criticisms of Professors Carver and Robinson, could be published in every trade-union paper of the United States, for I feel sure it would do much to counteract, in trade-union circles, the distrust of professional economists as helpers in the great movement for social reform and industrial equity. Professor Davenport, however, is evidently unfamiliar with the practical proposals of the single-taxers in his inference that they consider chiefly agricultural land values. Such a rendering, I believe, has no basis even in “Progress and Poverty”, and if one reads “Natural Taxation” and the “A. B. C. of Taxation”, the works respectively of T. G. Shearman and C. B. Fillebrown, the practical textbooks of the reform, the mistake is yet more evident.

Single-taxers propose to raise revenue from land value alone, but as they include in their term “land” not only farms but forests, mineral deposits, town sites, and public utility franchises (for the use of land and waterways and resources), I believe they cover all the sources of Professor Carver’s “findings” (or legitimate unearned increments) except patents. The practical method of assessment of these various types of land value is suggested in my article entitled “Natural Taxation of Mining and Timber Land”, published in *Conservation* for May, 1909, and in the *Mining World* for November 20, 1909.

The gains from monopolistic patent rights can be justified as both a return to the inventor for his brain work and as an inducement for him to record, for the benefit of society, his discovery, which, if kept secret, might otherwise die with him. On this basis undoubtedly our patent law has been abused, but it can be easily amended at any time to make it conform to practical justice. Land rent, however, on the other hand inevitably arises in any competitive society, and the only question before the social reformer is, who shall be allowed to absorb it? Shall it

all go to society or shall individual land holders get the whole or part of it? If one had heard today only the paper of Professor Adams and its criticism, he would have thought that taxation was a mere matter of fiscal adjustment. When one considers, however, that our present national and local governments spend about two billion dollars annually or at least one tenth of our total wealth production, it may be seen that taxation has become probably the chief factor in deciding how wealth shall be distributed among the different classes of society. Professor Davenport thinks that a direct land-value tax might be a social danger, but could anything be more demoralizing than our present indirect national taxation? In the many communities in which I have resided, the idea of the average voter of the chief purpose of a federal congressman is that he should act as a sluiceway to divert the stream of national expenditure into his local community. Would there be such a pressure on a congressman for public buildings, river and harbor works, pensions, etc., if his constituents understood that they were paying for them? Now, most voters think that a national grant is like money from home or a legacy from grandmother.

How the single tax would alter for the better the development of our natural resources can only be appreciated by a practical producer. For fifteen years I have been in practice as a mining engineer in many countries. I have been everywhere astounded that our laws still permit land-gamblers to hold up would-be developers to an extent now feasible in few foreign states. The conservation movement is but the first step toward the restoration of our land to the people. The long tolerance of present taxation absurdities by our producers is due to their ignorance of economic science. When the significance of Professor Davenport's paper becomes once known generally, there will be some fur flying among speculators, monopolists, and their dupes and lackeys.

As to Professor Robinson's idea that society has a right only to the future unearned increment, I wish to dissent. It is probably true that it would be impractical to recover the land rent paid in the past, but the recovery of that to be paid in the future (which is capitalized as the present selling value of land) is quite a different matter.

The abolition of the private appropriation of economic rent is analogous to that of chattel slavery. The latter was abolished in Brazil, without money payments to slave owners, by the de-

vice of gradual emancipation during a generation. In the same way, Mr. Fillebrown proposes to increase the land value tax 1 per cent annually for thirty years, while decreasing other taxes proportionately. This would suffice to throw the whole burden of government upon land values, raising the 20 per cent of rent now absorbed by taxation to the 50 per cent required for the whole expense of government. This would still leave 50 per cent in the hands of the land holders, which might be considered partly as a commission for rent collection, partly as a bonus for the risk of land development, partly as a margin covering incorrect assessment, and partly as a reserve available for society, through additional taxation, in case of sudden emergencies like earthquakes, famine, pestilence, or war. It is probable that all rent, beyond that needed to cover the actual requirements of the last paragraph, will gradually be absorbed by the future single tax society to cover the increased expenses of a developing social integration.

AN ATTEMPT TO DEFINE SOCIALISM

JOHN MARTIN

Definitions of socialism are almost as numerous as the combatants for and against socialism. Unbelievers claim the same right as believers to define the term, as Mark Twain said people should spell according to the dictates of their own conscience. The results are confusion and misunderstanding, muddy thinking and a woeful working at cross purposes in matters of national importance. So bewildering is the babel of voices that some people deny that socialism can be defined at all.

Preparatory to this symposium I inquired the opinion of some leading economists and publicists upon the meaning of the term and among the replies are the following:

Professor John H. Gray says: "You seem to have tackled a phantom, a will-o'-the-wisp. The term has no fixed or well-defined meaning. In the eyes of the interests socialism means any proposition to take away any power, legal or illegal, good or bad, that the interests now suppose themselves to possess."

Professor Davis R. Dewey writes: "It has never seemed to me possible to define the word so as to make it serviceable for general discussion. Socialism represents a movement. I do not see that it admits of sharper definition than Christianity, or barbarism, or culture. The discussion has gone too far and the term is too widespread to bring down to any definition."

Professor Simon Patten declares, "I cannot define socialism. It seems to me to be a composite of several thought movements, each of which has separate causes."

However, I am glad to report that this despair and bafflement are not universal—not even characteristic. The great majority of those I have asked, all of them qualified to speak with authority, not only give a definition, but their definitions come remarkably close together. They show little of those wide variations as to the meaning of the term which distinguish the speeches of politicians on the stump and propagandists on the rampage.

The briefest is by Professor T. N. Carver, to whom "Socialism is the public ownership and operation of all the means of production." This is closely allied with the definition given by Mr. Wm. Jennings Bryan in an essay of which his secretary kindly

sends me a copy as answer to my inquiry. "Socialism", writes Mr. Bryan, "is the collective ownership, through the state, of all the means of production and distribution." If Mr. Bryan's ownership be taken to include management, as other sentences in his essays indicate it does, and if Professor Carver considers that distribution is, as an economic process, only a stage of production, then Harvard and Nebraska are practically in agreement.

Professor Henry R. Seager elaborates this a little. "Socialism", he says, "is a proposed reorganization of industrial society which would substitute for the private ownership of land and the instruments of production public ownership, and for the private direction and management of industry, direction and management through public officials."

Notice that this definition does not specify that all the means of production be owned by the public. Similarly, Professor Carl E. Parry stipulates, "the common ownership and operation of substantially all productive instruments." The same point is made by a thoughtful advocate of socialism, Mr. W. J. Ghent, whose definition runs as follows: "Socialism is the collective ownership and democratic management of the social means of production for the common good." "Not ALL the means", he continues, "for it is entirely probable that many of the smaller industries may justly, and with due regard for social efficiency, be left in private hands."¹

Professor Richard T. Ely, in a definition originally given in his work "Socialism and Social Reform"—a definition which he tells me he would not change today—adds another idea. "Socialism", he says, "is that contemplated system of society which proposes the abolition of private property in the great material instruments of production, and the substitution therefor of collective property; and advocates the collective management of production, together with the distribution of social income by society, and private property in the larger proportion of this social income."

Probably the definitions before quoted may be taken to imply the idea fully expressed in the last clause of Mr. Ely's definition, that socialism contemplates private property in the larger proportion of social income. Others reach the same goal by considering the proposals of socialism with regard to the institution of property as fundamental. Professor David Kinley considers that socialism "in essence calls for a new law of property, to the

¹ W. J. Ghent, *Socialism and Success*, p. 217.

extent of taking from individuals and giving to society as a group all property rights in land and the instruments of production"; and Professor J. W. Crook writes that "the term socialism might wisely be confined to that plan of social or economic reform which would eliminate profits and interest by doing away with the institution of private property in productive wealth and substituting therefor public ownership of the means of production."

These definitions are more exact than an analagous definition enunciated by President Taft in a speech delivered at the Ohio Northern University, an extract from which his secretary kindly sent me as authoritative. "Speaking generally", said the President, "of the issues which are likely to be presented to you students in the future, I think the issue of most importance will be the question of the preservation of our institution of private property, or its destruction, and the substitution of a certain kind of coöperative enjoyment of everything, which is the ideal of socialism."

You will notice that the President does not confine the proposed joint enjoyment to the means of production. He appears to hold that socialism would preclude the private ownership of any part of that social income which Professor Ely expressly stipulates will "in the larger proportion be held as private property."

It would be too tedious to quote other definitions to similar effect.

From all the definitions submitted there are significant omissions. Not a single person even mentions free love or the disruption of the family as having any relation to socialism. I may say, however, in this connection, that Colonel Roosevelt did not reply to my inquiry.

Further, no mention is made of the doctrine of the class war, nor of the materialistic conception of history, except that Professor Wenley refers to the latter as the basis of the desire "to vest all sources of wealth in the central government."

To sum up, the great majority of my correspondents agree that the definition of socialism must include the following points:

1. Public ownership of nearly all the means of production.
2. Operation of these means of production by public officials.
3. Distribution of the income according to rules determined by the community.
4. Private ownership of the income so distributed.

It is noteworthy that these points are included in the definition officially adopted by the National Executive Committee of the Socialist party of America, which runs: "Socialism is the modern movement of the working class to abolish the private ownership in the social means of production and distribution, and to substitute for it a system of industry, collectively owned and democratically managed for the benefit of the whole people."

Notice that the Socialist party adds, however, an idea which is not mentioned by any economist I have consulted. The party executive says that socialism is the modern movement of the working class to secure what I have just defined as socialism. To them the movement and its working-class character are essential. A party formed to advance any cause is, perhaps, of necessity, as much concerned about tactics, strategy, discipline, and passwords as about the soundness of its philosophy or the practicality of its aim. The Socialist party of America, the lineage of which is more clearly German than English, attaches importance to the materialistic interpretation of history and to the doctrine of the class war as, jointly, both indicating and justifying the only method by which, they say, socialism can be installed, namely, by the organization of those persons who do not possess property into a political party which, acting independently of all other parties, will have as its sole aim the establishment of socialism. Their belief is that persons possessing property will inevitably, with exceptions so few as to be negligible, by their material interests be led to oppose socialism; while the non-possessors, also with only few and negligible exceptions, must ultimately, when they understand the case, become class-conscious and approve socialism. This is not the time to discuss the validity of those beliefs, nor the correctness of that simple division of society into two classes.

I must point out, however, that this major doctrine of the Socialist political party in America—a doctrine to which applicants for party membership are usually asked to subscribe—has no place in any of the definitions of socialism which I have received. If we accept the definition which I have previously analyzed, a person might legitimately be classed as a socialist and yet not be a member of the Socialist party, exactly as a person may be a Christian without joining a church, or a Democrat or a Republican without enrolling as a member of the Democratic or Republican party.

Though the labels democratic and republican have been appropriated by political parties, yet democracy and republicanism remain independent of party platforms, contortions, or evasions, and debatable as methods of political or social organization irrespective of the ballot cast by the disputants at elections. A student contrasting American with English or German government might proclaim himself a Republican though he voted for Mr. Bryan; and, speaking of Russian society, he might proudly assert he was a Democrat, though he voted for Mr. Taft. In neither case would it occur to his party to object. Similarly, it is quite conceivable that "Socialist", as a party badge, may come to have little or no relation to socialism as a form of social and industrial organization—the strength and weakness, the drawbacks and advantages, of which may be discussed without any reference to the way a man votes.

Theoretically that divorce between party label and abstract doctrine is already clear; but, practically, while a party is young and struggling for power, and while it is filled with a fervor almost religious, it finds it impossible to display that broad toleration which would permit profane lips to employ its sacred phrases, or unsanctified persons to preach its pure doctrine. Socialism possesses a literature, a tradition, a status abroad, and the dignity of being a world movement, the glory of which it is easy to understand that those who bleed and suffer and sacrifice in its name are not willing to forego.

At the end of the eighteenth century the party of Thomas Jefferson called themselves Republicans, because they had been charged by their opponents with desiring to run to the extremes of the democratic or mob rule which had been exemplified in Paris. They therefore rejected the name of Democrats for which the father of their party had ever shown a fondness; and not till about 1805 did they begin to adopt it, and to turn an epithet into a badge of honor.

But, nowadays, the Democratic and Republican parties, finding no considerable section of citizens denouncing or deriding abstract democracy or republicanism, and being daily fed with the solid sustenance of office and power, feel no pain in differentiating between themselves and the broad doctrines which carry their label. But the Socialist party is in a less halcyon state. Struggle, defeat, and famine are its accustomed portion; and, therefore, it is comprehensible that it should highly value the intangible glories

of tradition and orthodoxy. Therefore, probably for several decades, the political party will claim the right to decree what persons and measures possess the true hall-mark; and calm discussion of socialism, in whatever way we here agree to define it, will continue to be hampered by its association, in the public mind, with a particular political party.

It remains for us to explore the boundary line between socialism and its counterpart, individualism, where we may find some unexpected *terra incognita*.

Professor T. N. Carver, in presenting his definition, says that "The ideal of socialism is not at all different from the ideal of individualism. Both are aiming at approximating nearer and nearer to equality. Socialists think this can be achieved better through public ownership and operation of the means of production. Individualists think it can be achieved better through the preservation of the institution of private property and private ownership of the means of production, though not to the entire exclusion of public ownership in some things. One is not a socialist by virtue of his belief in the public ownership of some things. . . . If one believes there are some means of production that are well adapted to public ownership and others that are better adapted to private ownership, he is not a socialist but an individualist."

More precisely, Mr. Wm. Jennings Bryan says, "Individualism is the private ownership of the means of production and distribution where competition is impossible."

Professor Frank A. Fetter holds that "the name individualist is to be applied to the person who, at any given stage of social advance doubts the efficacy of relying on the associative motives and emphasizes the importance of giving play to the emulative and competitive motives as a means of securing the activity and energy required for progress in social organization. The name socialist is to be applied to the person who, at a given moment, minimizes the importance of individualistic motives, emphasizes the need of limiting and controlling the competitive activities in society, and believes not only in the need, but in the practicability of gaining social progress by developing at that time more associative and altruistic action."

Unless our definition specifies the character of the means of production which individualism would give over to public ownership, the distinction between individualism and socialism is so

blurred as to be hardly distinguishable. If we simply affirm that individualism sanctions public ownership of some means of production and socialism the private ownership of some means of production, or that the difference between socialism and individualism is only a matter of emphasis, then the classification of a particular proposal to transfer an industry from private to public ownership is impossible. It may be an instalment of socialism or a retention of individualism.

For instance, the existing federal ownership and operation of vast irrigation works, involving the expenditure of millions of dollars, the employment of thousands of men and the creation of hundreds of farms—is that socialism or individualism? Can a measure be a piece both of individualism and socialism? Is there a wide margin between the two, belonging to neither exclusively, a sort of hinterland over which both may freely wander, neither challenging the other as trespasser?

If individualism permits the public ownership, as Mr. Bryan asserts, only of those means of production in which competition is practically impossible, the classification of measures or proposals is more easy, though socialism is then stripped of a large territory over which it had flown its flag. Municipal ownership and operation of water, lighting, and transportation plants, and state ownership of railways, telegraphs, and telephones then become embodiments of individualism—though, I imagine, Herbert Spencer and the Manchester School of economists will turn over in their graves at the news.

But, in any case, is a statesman consistent who denounces socialism over night and recommends Congress next day to establish a line of merchant vessels to be owned by the nation and operated by public officials between the Panama Isthmus and San Francisco? Is such a statesman consistent even in condemning socialism *per se*, while, as Secretary of War, he is administering a fleet of steamers, owned and operated by the nation and running between New York and Panama? Clearly, competition is not practically impossible between steamship lines. If we allow that such a sample of government enterprise is not tainted with socialist principle, where shall the boundary between socialism and individualism be staked?

Does individualism consent to the government ownership and cultivation of wide-stretching forests, with nurseries, planters, rangers, and fire wardens, with the leasing of grazing privileges, the sale and removal of ripe timber, and all the other accessories

of a great business, conducted—all by public officials—for profit? Has individualism no more objection than socialism to the continued government ownership of deposits of oil, gas, phosphate rock, and of coal beds of incalculable value, all to be held in trust for the people and worked under leases that control the methods of exploitation, the conditions of the workmen, the royalties to be paid into the public treasury, and, perhaps, the prices to be charged the consumer? Is the whole policy of the conservation of natural resources as presented by its authors an incarnation of individualism, or is it a member of the great socialist family, simply washed and dressed and adopted into a respectable household?

We have nothing to do here with the political consequences of the correct labeling of political measures. Even if we agree as economists upon definitions which will help to clear our own thought and will aid college students to be intellectually honest, we cannot enact, and we would not if we could, any pure politics law which would compel the correct and honest labeling of party proposals and protect the public from misbranded goods.

Perhaps, as Professor Henry W. Farnam suggested in his address to the Association for Labor Legislation at the Atlantic City meeting, some new term is needed to designate the policy which is neither individualistic nor socialistic, the new type which has already developed between the two old well marked species, a hybrid with characteristics derived from both parents, each of which claims it for its own, to both of which it is a beautiful child, and neither of which is willing to forego the claims of parenthood.

If a new term be adopted, New Nationalism as suggested by Mr. Croly in "The Promise of American Life", Meliorism, Insurgency, or what not, economists will be justified in asking for an exact definition of its content. If political philosophies and economic doctrines merge into each other like the colors of the rainbow, passing from revolutionary red right through to royal violet without perceptible break, then straight thinking and intellectually honest politics are hardly attainable.

Pending the presentation of such a term, acceptably defined, I see no more hopeful prospect than to disinfect the term socialism of the virulent germs with which unauthorized persons have impregnated it: and then to give socialism the same impartial, impersonal investigation to which chemists subject a new food, or a fresh carbon compound which promises an easier life for mankind.

SOCIALISM—DISCUSSION

CARL E. PARRY: The drift of my remarks is to be along the line of a plea for scientific modesty. I find that students come into my classes with more confidence in the conception of socialism they happen to have than is at all justified; about the first thing I have to do is to shatter this confidence, by pointing out competing conceptions, and attacking the very idea that any definition of socialism can be adequate. So I insist, from the very first, that no one can have a very adequate conception of socialism who has not formed the personal acquaintance of some real socialists. I find this procedure makes everybody more tolerant, less cocksure, and more appreciative of the human characteristics of socialism, such as optimism, love of justice, human brotherhood, and so forth, which no abstract definition can even suggest.

But of course articulate thought and intelligent discussion cannot proceed without some attempt at definition; all that I wish to emphasize here is that a definition should know, and hold, its place. My own practice is to adhere closely to the rule that the purpose in hand dictates the definition. Thus economics, for its own purposes, will interest itself chiefly in the economic doctrines of socialism; sociology with such matters as its doctrine of class consciousness, and of the functions of the institution of the state; and philosophy, perhaps, with its ethical aspects, or its philosophy of history. For each of these purposes it is legitimate to adopt a different definition of socialism, stressing the aspect under discussion. I cannot see why any one science should have the right to dictate to another, much less to the world at large, just what shall be meant by such a term as socialism.

As a matter of fact, I do not make much use of the term myself; it carries too many meanings to be available for scientific use. I prefer to speak of "the orthodox socialist theory of value", "socialist tactics", "the ideal socialistic state", "the prevailing attitude of the socialists toward business competition", and other terms describing more accurately exactly what I wish to discuss. I believe that as economists, in this and other ways, we should practice the scientific modesty I have mentioned; that we should consciously realize that it is only on such matters as the validity of the labor theory of value, or the alleged law of

unlimited concentration of capital, or the probable relative productivity of a socialistic organization of industry, that we speak with authority. Outside the rather narrow limits set by our science, we should speak, if we speak at all, with extreme conservatism—always reminding the public that they must not attach any special authority to our pronouncements. For instance, the materialistic philosophy of history is a larger subject than any one science will care to handle alone; perhaps it lies in the province of philosophy to speak on it with authority—certainly an economist should not complacently settle the question, offhand, without realizing what a perilous path he is treading. And it seems to me, also, that the desirability of a socialistic organization of society, whatever that may mean, is something upon which an economist, in his professional capacity, has no right to dogmatize. He has done his full duty, for instance, when he makes such a conclusion as this: "In respect to productive efficiency, such an organization does not (or does, as he may conclude) hold out so much promise as the prevailing economic system." And for the purpose of drawing such conclusions as these I believe a special terminology, such as I have suggested, is more serviceable than one centering about an attempt to define "socialism" itself.

B. H. HIBBARD: If, as was held by Locke, argument is to disappear in definition, the need for a definition of socialism can hardly be called in question, since the argument is assuming formidable proportions. Besides, socialism cannot be ignored—with 40 per cent of the German voters casting a Socialist ballot; with the French and Belgian scarcely less numerous and gaining every year; with the English Socialists quiet at present, but threatening and even likely to show immense voting strength on slight provocation; with a 4 per cent showing in our own country, and an occasional case of 10 per cent or more for a state; with several members each biennium in state legislatures, and now a congressman—with all of this evidence of organized persistency and strength it is surely worth while to spend a little time in coming as nearly as possible to an understanding of what it is all about.

In the first place what sort of a definition may be hoped for? Manifestly it should be one of as wide acceptability as possible, since anything short of wide acceptability leaves the great ma-

jority of those interested attacking or advocating the plan without a mutual agreement of what is wanted on either side. Hence the definition must not attempt to go into detail; it cannot show the color of hair and eyes and the texture of the skin like a Dürer portrait; nor yet must it be as uncertain and hazy as the impressionistic productions of some modern artists. We do not want to see an aura, consisting of a curiously blended color spot within the field of vision, as do the followers of a certain new philosophy when looking at a man. Nor, again, can we hope to have this vision so clear and detailed that every feature and line shall be as distinct as the face of a living person at close range; the one is impossible, the other useless. We are of necessity undertaking to picture a scene at long range, and yet if we can get the same angle of vision we shall probably agree fairly well as to leading, outstanding characteristics. Socialism must be defined on the basis of a few fundamentals, and the future must be trusted for a closer view.

In seeking for a definition it will hardly do to go to the extreme opponents of socialism, for they will make it obnoxious; nor may we take the version of ardent supporters, for they will make it too attractive. Opponents seldom take much trouble to understand a case in all phases, while friends lose balance because of enthusiasm. We cannot accept the definition of our strenuous ex-President since he has evidently taken small pains to acquaint himself with the subject; we cannot take the view of the man now in the highest office since it is altogether nebulous. We cannot use the version of the Republican platform of 1908 for it is a begging of the question; nor that of the Democratic platform of the same year, for it is a plea of not guilty to an indictment. We cannot accept the view of Karl Marx since in his zeal to make it consistent and scientific he included too much, yet Bellamy was far more at fault in omitting the premises and giving the conclusions.

It would seem, then, that the definition must be given by those who view the subject dispassionately, and at the same time seriously, if we are to have a definition useful to any considerable number. Out of the many attempts to define socialism, Professor Ely in his book on "Socialism and Social Reform" seems to have been among the most successful, though out of his four elements the first two appear to contain the basis of the proposition, while the last two are corollaries. Socialism means the social, col-

lective, common, ownership and management of the great material instruments of production. Just what is to be understood by the term "great" is no doubt open to discussion, but it must include the material basis by which one set of men get the advantage of their fellows in the fight for existence. Clearly the railroads, the mines, the power sites, belong to this class; it is not clear that garden tools, or the garden itself, or a small farm, must be so included. That, under this definition, the great manufacturing establishments must come into public hands is beyond dispute, but it may well be contended that individual shops, repair outfits, homes, and a multitude of forms of private property may remain private.

Transitions from one social order to another are seldom appreciated by the people concerned at the time of the change. The domestic system of manufacture was in full swing in England in the early eighteenth century; a century later the industrial régime was on, yet the people of the time did not know what was happening. So if socialism comes it will not be by might or by power; it will creep upon us unawares and we shall some day look back and see that the age of capitalism has been supplanted. When the opportunity of exploiting the common citizen through the fortunate possession of natural resources is past, when lines of transportation are in the hands of the people, when the laborers—and we are nearly all laborers—have a real voice in determining the basis of distributing the product, this will be a different industrial order, which may as well be called socialism as by any other name. However, if the good results here alluded to can be accomplished without taking from private hands the main mass of material goods, then individualism and not socialism will best characterize the arrangement, and social reform will designate the nature of the change. But, just as the machine age leaves a vast amount of work to be done by hand, so a socialistic age may leave a vast amount of private property and private enterprise. It is the question of which shall play the grand role.

FRANK A. FETTER: Mr. Martin has quoted in part from my reply to his inquiry. I there distinguished several concepts of socialism and of individualism, for each may be thought of as (1) a general principle of social action, (2) a habitual attitude toward social problems, (3) a group of persons or a political

party made up of persons in whom the habit of thought is relatively marked, (4) a set of measures and policies in regard to social questions. Still other shades of meaning and combinations of ideas appear, but through all this variety runs a connecting thought. I believe the central and essential definition of socialism to be of the character of the first of these four. Socialism as an abstract principle is reliance on the associative qualities of human nature for the motives of action in social affairs.

An ideal solution of a terminological problem is attained when a central thought is reached, around which all the other senses can be grouped and which invests each of the subordinate members with its true significance as parts of a related group. It is this more fundamental and therefore more enduring definition, I take it, that we as social students should now seek, rather than any more accidental and temporarily conspicuous meaning of the term socialism.

Assuming a common understanding as to the principles of scientific terminology, we may put our question thus: how can these principles be most effectively applied to the definition of socialism, a thought of great complexity, a word of manifold usage? We may test the definition of socialism with reference to its etymology, its history, and its competitors for favor.

The etymology of socialism is very simple and apparent. Socialism clearly is related to social in exactly the same way that individualism is related to individual. The two are indispensable counterparts in our vocabulary, just as are idealism and materialism in philosophy, or as idealism and realism in art. Back of, and fundamental in, the terms is the thought of the motives to action upon which we rely, or to which we look, in bringing about a result felt to be good. We may at once eliminate from consideration any definition that implies that socialism is love of fellow man, while individualism is its converse, a self-seeking with intent to injure. That begs the whole question involved and many other questions. A most unselfish person may, in the particular situation, be individualistically inclined, believing that a mistake may be made in social engineering by miscalculating the tensile strength of our social materials, that is, by assuming a capacity for self-sacrifice far in excess of reality. One is individualistic whenever one protests against underestimating the innate, universal motives of self-interest as making up a part, at least, of human nature. One is socialistic, on the other hand,

whenever one warns against the fallacy of assuming that the socially educated and disciplined human nature, as contrasted with innate faculty, is fixed in quality from age to age, or is incapable of development by training, by exercise, and by the cultivation of new standards of morality.

Between the two concepts are divided all the motives of social conduct, those proceeding from the fundamental instinct of self-preservation, and those proceeding from the little less fundamental and ancient self-forgetful instincts of parenthood, sex idealism, duty and loyalty to fellows.

The appeal to the history of the word socialism will hardly support the exclusive claim of any one definition. I take it that the word was first applied in the early nineteenth century to the utopian ideas of such men as Fourier, Cabet, etc., and then to the community experiments their disciples attempted. As late as 1870 appeared Noyes' book with a title in this sense, "A history of American socialisms." Marx and Engels condemned this kind of socialism and were careful to call their own idea communism, and these two words, socialism and communism, somehow between 1850 and about 1880 pretty nearly changed places and meanings. Yet throughout Continental Europe the change is far from complete or exact. Communism as Marx used the term, is known in Germany by his followers and others, less as socialism than as social-democracy. The term socialism has been and is still applied with varying adjectives to very different groups of people and tendencies of thought, such as Christian socialism, Catholic socialism, socialism of the chair, state socialism, etc. The only definition of socialism that unites consistently and logically these various historical meanings is the one here suggested.

Let us compare our definition with its main competitors for favor, of which there evidently are two: (a) socialism as designating a particular political party; (b) socialism as designating a particular political program or goal.

(a) Just now in America a political party is attempting, as appears in one of the definitions quoted by Mr. Martin, to appropriate the terms socialist and socialism. It hardly needs argument to show that the designation of a political party by the name of a general political principle gives necessarily a temporary, superficial, inaccurate meaning, unsuited to scientific purposes. Party names are chosen because of their sentimental ap-

peal, their vote-getting power, their emphasis of a passing political situation. The Democratic party, the Republican party (democracy, republicanism), who thinks of treating these words as used in a fundamental sense? It is a subject of jest that a partisan Democrat may be a plutocrat, an aristocrat, an oligarch, or even a socialist at heart. Lincoln, the greatest of Republicans in the partisan sense, was, in the deeper sense, the best democrat our land has known in public life. It would indeed be a misfortune if the word *socialism*, which so clearly is needed in the family group of terms along with republicanism, democracy, individualism, etc., as general principles, should be perverted to any less fundamental meaning. The attempt to lend a greater definiteness by limiting the word *socialism* to the political party dominated by the intellectual disciples of Marx, would be peculiarly unfortunate just at this time, when the dissent from the Marxian economic value-theory and materialistic philosophy is daily growing in the ranks of social-democracy. That party should be described as radical socialism, or Marxian socialism, or political socialism, according to the varying emphasis.

(b) The other widely favored competing definition is that of socialism as the ideal plan or program of political reform, by which all private property and competitive industry is to be abolished. I long held this definition and attempted to use it consistently, but the difficulties it creates are so many it would require a book to describe them. This definition is surely quite arbitrarily and artificially limited as compared with the etymology of the word socialism. It leaves quite without description and without any uniting term, the various historical forms. It is quite inapplicable to a large proportion of those persons who now call themselves and are by others called socialists—even to a very large proportion of the ten million voters of the Socialist party ticket throughout the world. The attempt to frame the definition in absolute terms is almost self-destructive, as appears clearly in this discussion.

Interwoven with the foregoing argument has been the suggestion of the test of our definition by the two great canons of terminology, expediency and economy. Our scientific definition must be in accord with ordinary usage so far as possible, but it is impossible to make it accord with all usage, for usage is multifarious and inconsistent. We must choose the central fundamental thought, that which takes account of the various specific forms of definition.

We must choose that social concept which in a changing society has in it enough elasticity and vitality to be capable of accommodation to and growth in changing conditions. We must if possible choose a meaning that is logically and conveniently related to other fundamental terms in the language. All these tests are met by this, and by no other definition proposed. It answers all the questions put in the opening paper. Are you in your attitude toward this or that proposal a socialist or an individualist? Are the present changes in public opinion in a socialistic or in an individualistic direction? These and many other uses of the term may and must be made every day. To adopt a narrow and partisan definition is to leave a notable gap in our vocabulary of social discussion. Socialism is a large and significant term. Let us free it from petty prejudices and temporary misconceptions and fit it for a larger social usefulness.

T. N. CARVER: On a certain page in Kidd's "Social Evolution" there is a collection of definitions of religion. There seems to be no uniformity among them until one discovers that the definitions fall into two general classes: first, those which try to define religion as it actually exists as an objective fact in the world; the other includes those which try to define religion as the author thinks it ought to be—that is, an ideal religion, or a pure religion. Any collection of definitions of socialism will fall into the same two classes. The first will include those which describe socialism after finding what socialists are actually advocating in their talks to one another. A definition of this kind will describe socialism as it actually exists as a working force in our political life. Another class of definitions will include those which socialists give us when they are trying to make it seem attractive to economists and other people.

There is a great difference between socialism as it is preached to the working classes, or as it is found in the socialistic journals which appeal to the working classes, and the socialism which is defined before an academic or scientific body such as this. Any one who will take the trouble to read the propagandist literature of socialism will find that nine out of every ten, or possibly ninety-nine out of every hundred, books, articles, or speeches propose nothing short of complete common, or public, or government ownership of all means of production. They do not mince mat-

ters; they propose the whole program, not necessarily to be carried out instantly or all at once, but they leave no doubt that sooner or later, at once or gradually as the case may be, nothing short of complete public ownership of all capital is to be secured.

Again, their economic theories would compel them to go to this end, even though they deny that they are proposing such a scheme as a practical measure. Any one who denies that interest is earned, or contends that all interest is the result of exploitation, could not stop short of that complete program. It would be illogical to take away some capital and leave other capital in the hands of private owners who would continue to receive interest. Of course there might be some very minute forms of capital which it would not pay the government to bother with. Jackknives, lawn mowers, and the like, might be left in the hands of private owners, not because they have any right to them or to the service which such tools render, but merely because they are too small and insignificant for the government to bother with. There would probably be less loss to allow this much exploitation than to go to the expense and trouble of handling such things by government authority.

Therefore, it seems to me that socialism is a pretty definite program, and not a mere tendency, nor a frame of mind, nor an attitude toward things in general. The term socialism is one of those exclusive terms, like vegetarianism. One is not a vegetarian by reason of the fact that he eats vegetables; he is a vegetarian only when he refuses to eat anything else. One is not a socialist by reason of the fact that he believes in some forms of government enterprise, such as schools and the post office; he is a socialist only when he believes in nothing else but government enterprise. I may not even be said to be tending toward vegetarianism when I pass up my plate for more potatoes; I am merely proposing to eat vegetables. Nor is the state tending toward socialism when it proposes some new form of public enterprise, which under the conditions of time and place seems to call for government enterprise. Nor is the physician inconsistent who denounces vegetarianism and at the same time prescribes for some patient a little less meat and a little more vegetable food. In the same way it would be improper to accuse a statesman of inconsistency merely because he one day denounces socialism and the next day approves the government's doing something new.

ISAAC A. HOURWICH: The economist cannot decline to give a scientific definition of socialism. Socialism has had a history going back to the beginning of the nineteenth century. There are said to be ten million socialist voters in the world. Surely it would be a confession of impotence on the part of political economy if it failed to find some definition descriptive of that phenomenon.

Such a definition, however, must not deal in mere abstractions. Socialism must be defined in the terms of evolution.

From the point of view of evolutionary socialism, the qualifying adjective "social" in the phrase "Collective ownership and operation of all social means of production" implies no contradiction. Modern socialism does not aim at the socialization of all bootblack stands. It is only those industries which have become quasi-public that are considered by the evolutionary socialist to be ripe for social control, irrespective of the question of the justice or injustice of rent, interest, etc. Our Interstate Commerce Commission, our public service commissions, our statutes for the regulation of railway rates and charges for other public utilities, are all steps in the direction of socialism. To demand of the individual manufacturer that he should disclose his books to the public would be an impertinence, because it is his private business; but we all agree upon the demand for publicity in corporate affairs.

For an answer to other objections made here to the definition which is given in the platform of the American Socialist party we must refer to the history of socialism. The adjective "democratic" is not used in contradistinction to individual enterprise, but to distinguish modern socialism from such forms of industrial organization as, for example, the communism of the Jesuit state of Uruguay, where there was public ownership and operation of all industries, yet without democratic management. The term "collective", as distinguished from "public ownership", likewise has its history. It originated in the controversy between the followers of Marx and Bakounine in the first International. Marx and his school advocated "public" ownership, whereas the disciples of Proudhon and Bakounine advocated voluntary coöperation, which they termed "collective" ownership. During the last twenty years coöperation has made great strides in agriculture, both in Europe and in the United States. The various coöperative associations in agriculture number their membership by the million. Here is an example of collective ownership and operation, which is yet not "public" ownership and operation.

DAVIS R. DEWEY: I am skeptical as to the value of attempting to define socialism. Even if the members of the Association or a similar body should agree upon such a definition, it would not be possible to secure an agreement in the world at large. In public discussion it would still be necessary to inquire specifically as to the brand of socialism under consideration in order to meet on a clearly defined issue.

F. W. TAUSSIG: In these discussions of what "socialism" implies, it seems to me odd that so much attention is given to the means, so little to the end. Collective ownership and management are but means. The end of socialism, and the essential thing for it, is a change in distribution. A change in the mechanism of production is desired not for itself but in order to substitute a distribution deemed just for one deemed unjust. I take it that under any socialistic organization all funded incomes (interest, rent, and so on) would disappear; no leisure class would exist; all the able-bodied would labor, and the only remuneration would be for labor, that is, would be wages. Wages would be adjusted on some basis thought equitable; perhaps on a basis of need, or one of sacrifice, or one of efficiency, or some combination of these; but at all events one deliberately selected as just, and surely with very much less of inequality than in existing society.

Now in deciding how far a remnant of individual ownership or competitive service might be permitted, as not inconsistent with the principles of socialism, the essential question would be whether the result was in accord with this deliberately selected canon of just distribution. Public ownership of capital *per se* does not necessarily modify the essentials of existing distribution; and conversely some private ownership of capital is not necessarily inconsistent with socialistic distribution. The question is, which principle of distribution dominates. When a government nowadays undertakes public management, say of a railway, it does not change the essentials of distribution. Interest is still paid to the former stockholders, who become simply public fund holders. Great disparities in wages remain; the officials and mechanical experts still get high salaries, the workmen still get wages at the familiar rates. This is not socialism, or any noticeable approach toward socialism. But if all large-scale enterprises are under public management; if interest on capital disappears; if wages are ad-

justed on what is selected as the just basis; and if only such private ownership and management are allowed as bring substantially the same rates of earnings as these wages—then there would be not only an approach to socialism, but socialism in all its essentials. Physicians might be allowed to own their instruments, mechanics their tools, even small farmers (“one-family farmers”, say) their own land, if no marked divergences from the “just” scheme of distribution resulted. True, a refined analysis might detect in such cases a small infusion of return on capital; but the maxim *de minimis* would apply. Hence there might be some play to private ownership and some competitive activity, and yet socialism full-blown. If one looks simply to the means—public ownership—one can say there is no socialism unless there is universal public ownership. But if one looks to the end, one can say there is socialism as soon as the existing “unjust” modes of distribution are swept away, and only those competitive earnings left undisturbed which conform to the socialist principle of justice.

RICHARD T. ELY: It seems to me we are talking about two different things, although to both we are giving the one term, socialism. Most of the speakers have been talking to us about an economic program; but Professor Fetter has been talking to us about a social philosophy. Inasmuch as the definition found in my “Socialism and Social Reform” has been referred to, I think that I ought to say a few words further about my position. In my book I speak about socialism in the broader sense and in the narrower sense. By socialism in the broader sense I mean a general social philosophy; and, so far as I can gather, I define socialism in its broadest sense substantially as Professor Fetter has defined it. As a matter of fact I find socialism used in this broad sense, and something can be said in favor of employing the word to designate a certain social philosophy which is opposed to individualism. It is apt, however, to lead to confusion. My definition of socialism which has been quoted by Mr. Martin and referred to by Professor Hibbard gives, it seems to me, the essential elements in that economic program which is ordinarily called socialism. Socialism may include other elements, but any economic program to be socialism must include these. I have based my analysis on the study of the various programs of socialism in different countries where socialism is found.

JOHN MARTIN: It is, of course, competent for anybody to refuse to use any word, socialism or other. The difficulty which Professor Dewey will encounter is that he cannot blot out the word from the textbooks nor burn the libraries of volumes in which it is discussed.

I cannot follow Professor Carver in his contention that because socialists deny that interest is legitimate, because they contend that interest is not earned, they must logically demand the public ownership of absolutely all industry. The instruments of the doctor, the brushes of the painter, are tools of production, yet their owners do not collect interest on them, and their ownership by the community is not inevitably required to prevent the private appropriation of interest.

Professor Carver argues that just as vegetarianism forbids the eating of any meat so socialism forbids the use of any private ownership. Many of us had thought that, on the contrary, individualism was the exclusive political philosophy and forbade the use of any public ownership. Herbert Spencer and the Manchester School of economists declared all government interference with industry bad *per se*. Not until recently was I aware that individualism, in the opinion of some of its professors, is compatible with an unlimited extension of public ownership. Surely every such extension can legitimately be described as a step toward socialism. Suppose a man had eaten an exclusively meat diet. There are such carnivorous men, though I don't know of any women. Suppose a doctor recommended him to make a meal of vegetables first once a week, then once a day, and so gradually to supersede flesh with vegetables. Would he not be moving all the time towards vegetarianism, even though he never finally dropped every ounce of meat from his menu? Would the doctor be consistent, while prescribing this change of food, if he went about denouncing vegetarianism as the sum of medical villainies and a peril to the health of the citizens? If nothing is socialistic short of the complete public ownership of industry, then all the socialistic programs are only expressions of the new individualism, for no socialist program demands the immediate transfer to the community of all industry.

GOVERNMENT FACTORIES; AN ATTEMPT TO CONTROL COMPETITION IN THE FUR TRADE

KATHERINE COMAN

Regulation of the Indian trade was a policy inherited from Great Britain by the seceded colonies. Indians and fur-bearing animals had been driven from the Atlantic Coast by the end of the eighteenth century, but the region beyond the Appalachians, added to British possessions in America by the Treaty of Paris, was reserved from settlement by a decree of George III with a view to maintaining peace with the native tribes and preserving the fur trade. Daniel Boone and other hunters, defying the royal decree, crossed the mountain passes that led into Ken-ta-kee, and soon settlers were pouring into the forbidden territory. The Congress of the Revolution manifested its sense of responsibility for the peace of the frontiers by forbidding (1776) persons to trade with the Indians unless licensed by the proper authorities. Ten years later, the Congress of the Confederation found time to expand this prohibition into a careful regulation of the fur trade. An Indian department was established under the Secretary of War, and the deputy agents were authorized to grant licenses to citizens of the United States whose moral character was vouched for by the governor of the state to which they belonged. A bond of \$5000 must be given for the observance of regulations as to the sale of liquor and firearms, while the term was limited to one year. A fee of \$50 was charged for this permit, and a penalty of \$500 with forfeiture of goods was imposed on unlicensed traders. These severe regulations were modified by subsequent legislation (1790, 1793, 1796, 1802). The license fee was abolished, the penalties for non-observance were lightened, and the requirement of responsible moral character lapsed. Jay's Treaty conceded to British subjects the right to secure licenses to trade within United States territory, and thus the fur trade of the Illinois Country, the prize wrenched from the British traders by Clark's Wabash expedition, was thrown open to all comers, and anarchy ran riot. In the hope of counteracting the influence of the Montreal traders, protecting the Indians from imposition on the part of our citizens, and promoting the prestige of the United States among the frontier tribes, President Washington proposed that government factories be established at strategic

points where goods should be sold at cost and furs and peltries be received at fair and even liberal prices. The Committee to whom this suggestion was referred reported favorably (December 1, 1794) and recommended "that as this transaction is intended to conciliate the affections of the Indians, it should not be the object of the government to profit thereby; hence a stated price should be fixed on the articles to be sold, having regard to the profit and loss on the articles received in payment, in such manner that although nothing is to be made by the government, the capital should be kept entire." The act of 1796 was the result. A fund of \$150,000 was appropriated by Congress as a capital stock, and two posts were immediately established, Coleraine on the St. Mary's River, Georgia, and Tellico blockhouse in the South West Territory. The fund was increased to \$260,000 in 1804 and to \$300,000 in 1809, while the original allowance of \$8000 for salaries of factors¹ and post expenses was later increased to \$10,000 and \$19,250.

As Indians, game, and furred beasts were driven west by the on-moving tide of settlers, the original posts were abandoned and new factories were opened at Chickasaw Bluffs, Fort Wayne, Detroit, Natchitoches, Chicago, Michillimackinac.²

¹The salary of the factor was \$1000, that of his assistant \$500, while an allowance of \$500 was made for the subsistence of each post.

²List of factories in operation in 1810 as given by Gen. John Mason, Superintendent of Indian Trade, with the date of establishment.

1795, Coleraine, on St. Mary's River, Georgia.

" Tellico blockhouse, South West Territory.

1802, St. Stephens on the Mobile River.

" Chickasaw Bluffs on the Mississippi.

1802, Fort Wayne, on Miami of the Lakes.

1803, Detroit, on the St. Clair River.

" Arkansas Post, on the Arkansas River.

" Natchitoches, on the Red River.

" Belle Fontaine, on the Missouri where it empties into the Mississippi.

" Chicago, on Lake Michigan at the portage to the Illinois.

1806, Sandusky, on the Lake Erie.

1808, On the island of Michillimackinac, the oldtime fur market of the Algonquins.

" Fort Osage on the south bank of the Missouri between the Kansas and the Osage Rivers.

" Fort Madison on the Upper Mississippi.

The original factories, Coleraine and Tellico, had been moved farther west and two had been discontinued as unnecessary, Detroit and Belle Fontaine. (American State Papers. *Indian Affairs*. I, 767.)

The first annual reports of the trade operations of the government were highly satisfactory. That for 1801 indicated that the capital had not been depleted but even increased by three or four per cent. The Indians were gratified by the assured market for their furs and the fair treatment accorded them at the government stores. The illicit sale of liquor was prevented, while the ambitions of the Northwest Company were held in check. In January, 1803, President Jefferson addressed a message to Congress recommending that more factories be placed on the troubled frontiers, saying, "We undersell private traders, foreign and domestic, drive them from the competition, and thus with the good will of the Indians, rid ourselves of a description of men who are constantly endeavoring to excite, in the Indian mind, suspicions, fears, and irritations toward us." This most philosophical of presidents proceeded to discuss the advantages of the government factory as a means of civilizing the Indians and of inducing them to settle down to an agricultural life.³ Once farmers, the aborigines would discover that they needed less territory than when they were dependent on the chase, and might therefore be willing to sell their lands to the whites. The fur trade, on the contrary, had the effect of inducing the aborigines to abandon their native industries and to render them wholly dependent on hunting.

For the private trader driven from the region east of the Mississippi by the no profit operations of the government trading houses, Jefferson proposed the Missouri River, whose rich resources were being exploited by the agents of the Northwest Company, notwithstanding the handicaps of distance, difficult portages, and streams frozen over half the year. The fact that the watercourses of this little-known territory flowed south to the Mississippi should give United States traders an important advantage. The president went on to intimate that the Missouri might soon be explored to its source and beyond. "An intelligent officer, with ten or twelve men fit for the enterprise, and willing to undertake it, might explore

Later additions were Des Moines, Fort Hawkins, Green Bay, Prairie du Chien, Sulphur Fork of Red River, Fort Edwards.

There were but nine government factories in existence in 1822, Fort Osage and Marais des Cygnes in the Missouri district, Prairie du Chien and Fort Edwards on the Upper Mississippi, Choctaw, Arkansas Post, and Sulphur Fork in the south, Green Bay and Chicago on Lake Michigan.

³ With this end in view and at Jefferson's instance, an agricultural school had been opened at Nauvoo in the Illinois Country where the Sacs and Foxes were planting corn and raising cattle. Coues' Pike, I, 256, 291.

the whole line, even to the Western Ocean; have conferences with the natives, on the subject of commercial intercourse; get admission among them for our traders, as others are admitted; agree on convenient deposits for an interchange of articles, and return with the information acquired in the course of two summers.”⁴

This project was realized in the Lewis and Clarke expedition to the Columbia, which opened up a vast new territory to the fur traders of St. Louis. While sojourning at the Mandan villages in the winter of 1804-05, the captains had opportunity to see the Canadian traders and they stated the American policy to Larocque, a *bourgeois* of the Northwest Company. “They (Captains Lewis and Clarke) told me it was not the policy of the United States to restrain commerce and fetter it as was the case when Louisiana belonged to the Spanish; that we and all persons who should come into their territories for trade or for any other purpose, will never be molested by any American officer, or commandant, unless his behaviour is such as would subject an American citizen himself to punishment. Nor will any trader be obliged to pay for permission to trade, as was formerly the case under the Spanish, as no exclusive privilege will be granted. One thing that government will do, as it has always done about Detroit, and other places where opposition in trade ran high, is to have a public store well assorted of all kinds of Indian goods, which store is to be opened to the Indians only when the traders in opposition run to excessive lengths; for the purpose of underselling them and, by that means, keep them quiet. No derouine (credit sales) to take place, no liquors to be sold, etc. In short, during the time that I was there a very grand plan was schemed, but its being realized is more than I can tell, although the captains say they are well assured it will.”⁵

While acting as governor of Louisiana Territory, Captain Lewis prepared a report on the Indian trade, which, though left unfinished at his untimely death, is a valuable contribution to the discussion of the government policy. French and Spanish creoles were prosecuting the fur trade on the Missouri as far as Council Bluffs, before the Louisiana Purchase had brought that rich territory within the jurisdiction of the United States; but the Lewis and Clarke expedition by revealing the rich resources of the upper river had attracted “several enterprising American merchants” to

⁴ American State Papers. *Indian Affairs*. I, 685.

⁵ Masson, *Les Bourgeois de la compagnie du Nord-Ouest*. I, 305-6.

this business opportunity. Meantime the Northwesters were pushing down from the Canadian posts into the same region, and their pirogues loaded with beaver and buffalo robes floated down the Mississippi to St. Louis and New Orleans. Besieged by so many and diverse rivals for their patronage, the Indians were becoming truculent and dangerous, and appeal was repeatedly made to the officers of the United States army to punish the outrages committed against the traders. The most frequent source of contention was the system of giving credits, a vicious practice handed down from the Spanish regime, according to which the trader advanced to the Indian tribe from which he hoped to secure furs, an equipment of food, clothing, and ammunition sufficient for the winter's hunt. The merchant made these advances in the expectation of being paid in full when the braves returned to his post in the spring bringing their season's catch; but the Indians considered the merchandise in the nature of presents, tribute rendered for the privilege of passing through their territory unmolested, rather than a binding obligation. Not infrequently a rival trader intercepted the tribe on its return from the hunt and purchased the furs on the spot, quite regardless of the previous contract. "When the merchant to whom they are indebted arrives, they have no peltry, either to barter or to pay him for the goods which they have already received; the consequences are that the merchant who has sustained the loss becomes frantic; he abuses the Indians; bestows on them the epithets of liars and dogs, and says a thousand things only calculated to sour their minds and disaffect them to the whites; the rival trader he accuses of having robbed him of his credits and calls him many opprobrious names; a combat frequently ensues, in which the principals are not the only actors, for their men will, of course, sympathize with their respective employers. The Indians are the spectators of these riotous transactions, which are well calculated to give them a contempt for the character of the whites, and to inspire them with a belief of the importance of their peltries and furs." It was impossible to supervise the operations of Indians or traders with the inadequate force then provided by the government. "The Superintendent of St. Louis, distant eight hundred or a thousand miles, cannot learn whether they have forfeited the penalty of their licenses or not; they may therefore vend ardent spirits, compromit the government, or the character of the whites, in the estimation of the Indians, or practice any other crimes in relation to those people, without fear of detec-

tion or punishment." Lewis suggested that military posts be established on the upper Missouri at Council Bluffs, and at its junction with the Yellowstone, where traders and Indians might meet under official supervision. So the red man would be protected against extortion and fraud, and the trader might have safe storage for his goods and furs, while the demoralizing traffic in liquors could be controlled to the lasting advantage of all concerned. "If both traders and Indians throughout Upper Louisiana were compelled to resort to regulated commercial posts, then the trader would be less liable to be pillaged, and the Indian deterred from practicing aggression; for when the Indians once become convinced that, in consequence of their having practiced violence upon the persons or property of the traders, they have been cut off from all intercourse with those posts, and that they cannot resort to any other places to obtain merchandise, then they will make any sacrifice to regain the privilege they had previously enjoyed; and I am confident that, in order to regain our favor in such cases, they would sacrifice any individual who may be the object of our displeasure, even should he be their favorite chief; for their thirst of merchandise is paramount to every other consideration." It is improbable that this practical suggestion was ever submitted at Washington. No steps in this direction were taken, but in 1808 a new government factory, Fort Osage, was planted on the Missouri River.

The act of 1811 created the office of Indian Trade under the War Department and provided for a superintendent, at a salary of \$2000, who was made responsible for purchases, sales, and disbursements. The business was seriously handicapped by the requirement that supplies must be bought and furs sold in the home market. The goods were inferior to those imported from England by private merchants, while the American market for furs was overstocked and the prices ran correspondingly low. Many bales rotted in the cellars at Philadelphia and New Orleans where they lay awaiting a purchaser. During the War of 1812 the trading posts suffered from British depredations,⁶ prices for domestic goods were doubled and trebled, while furs were a drug in the market. Many of the independent traders were ruined and the stock invested by the government was depleted by \$43,369.

⁶The buildings, supplies, and stock of furs at Chicago, Michillimackinac, Sandusky, Fort Wayne, and Fort Madison were lost to the enemy. American State Papers. *Indian Affairs*, II, 59, 68.

The public venture in the Indian trade had never been regarded as permanent, the enabling act had been renewed at three year intervals and the factories located at points indicated by military considerations. Thus far there seems to have been no serious opposition raised by the private traders, and the maintenance of peace on the frontiers where new settlements were being planted was regarded as the paramount interest. But the Peace of Ghent gave assurance of permanent tranquility and the fur trade recovered its former activity. Astor reorganized the American Fur Company and laid a strong hand upon the traffic centering at Mackinaw, while the merchants of St. Louis revived ambitious projects for the Missouri River trade. The machinations of the Northwest Company were defeated by the settlement of the boundary question, and the influence of Astor at Washington secured their exclusion from United States territory. The abolition of the government factories was the next move. The initial protest was voiced by Ninian Edwards,⁷ the first governor of Illinois Territory, in 1815; but his argument is evidently based on a statement submitted to him by "Colonel" Auguste Chouteau, who having pursued the fur trade on the Missouri for forty years, "with such success as to have amassed an immense fortune by it", had first-hand information. According to Chouteau the government agent, stationed at a frontier post and little influenced by public opinion, is not prone to a zealous performance of a business in which he has no personal interest. He is, moreover, apt to be quite ignorant of the language, customs, and taste of the Indians, and rarely secures their confidence. Only a small portion of the furs taken reach the government factories for they are located at military posts without reference to neighborhood to the native villages, while the private trader follows the Indians to the hunting grounds and purchases the furs on the spot. These *coureurs du bois*, moreover, undertake long journeys into the interior and are thus making discoveries of first importance. The prohibition of credit advances imposed on the government salesman is a serious handicap. The hunting grounds are so far exhausted that the Indians are obliged to go as much as three hundred miles from their villages for the winter hunt, taking their families with them. They must be equipped with clothing and ammunition, and they have nothing to give in exchange until they return in the spring. Having found that the trade was slipping from the hands

⁷ American State Papers. *Indian Affairs*. II, 62-7.

of the government factors, Edwards submitted two suggestions. First, that a government factory be established at St. Louis to deal, not with the Indians, but with the traders, furnishing goods on credit to men who could give security (*e. g.*, \$10,000) for repayment of advances and for observances of the regulations. In this way the odium of a government monopoly would be avoided and traders, *voyagers*, and *engagees* would be attracted to St. Louis. Chouteau, who probably originated this proposal, opined that the trade of the lower Missouri was worth \$150,000 a year and could be handled by twenty or thirty *bourgeois* with two hundred *engagees*. The trade of the upper Missouri with the more war-like tribes, Sioux, Aricaras, and Blackfeet, involved far greater risks, and this privilege should be vested in a joint concern with a capital sufficient to enable it to compete with the Northwest Company. Returns to the amount of \$200,000 a year might be anticipated, once the business was on a stable foundation.

Apparently the arguments in favor of private business thus eloquently set forth, did not find favor at Washington. Secretary Crawford transmitted to Congress in 1816 the recommendation that the capital⁸ entrusted to the office of Indian Trade be raised to \$500,000 and that the conditions on which licenses were granted to private traders be made more rigorous—for example, none but men of approved reliability to be admitted to the trade and a bond of \$10,000 to be exacted. The report of Secretary Calhoun for 1818 was in the same tenor. He believed that the existence of the government factory had blinded public attention to the need of rigorous licensing requirements. Under the loose system then prevailing, foreigners and unscrupulous adventurers were securing this responsible privilege. Liquors were sold by wandering peddlers and the Indians were being rapidly demoralized. He recommended the reënactment of the law of 1786 with even higher fees and penalties.⁹ A high license requirement would throw the trade into the hands of more reliable men who could be counted upon to report the misdeeds of the peddlers. The licensed merchants should be required to maintain fixed headquarters, and their accounts showing the rates at which goods were exchanged for furs should at all times be open to the

⁸ The losses incurred during the War of 1812 had been made good within \$18,000, representing a gain of \$34,547.

⁹ *E. g.*, an annual fee of from \$100 to \$500 and the penalty for trading without license from \$500 to \$1,000.

inspection of the Indian agent. For the new and rich territory beyond the Mississippi, where American traders were brought into competition with the British companies, Calhoun recommended that exclusive privilege of the Indian trade should be vested in a joint stock company, with a large capital, for a term of twenty years. The incorporators should give adequate guarantees for the observance of all regulations, and a tax proportioned to the subscribed capital should be exacted in return for their valuable concession. Calhoun evidently anticipated some opposition from the individualists, but he is undaunted. "The mere objection that it would create a monopoly ought not to outweigh so many advantages. . . . A nation discovers its wisdom no less in departing from general maxims, where it is no longer wise to adhere to them, than in its adherence to them in ordinary circumstances."¹⁰

Calhoun's strictures on the private traders were fully borne out by a report rendered by Major Thomas Biddle, who served under General Atkinson on the Missouri River expedition of 1819 and was deputed to make a special study of the Indian trade.¹¹ There were at that time six private firms engaged in the business, the sum of whose capital stock amounted to but \$53,000,¹² and the government factory at Fort Osage. "It is evident from this statement that the trade is of little importance in a pecuniary point of view, and that various individuals having opposite interests trade with the same Indians. These traders are continually endeavoring to lessen each other in the eyes of the Indians, not only by abusive words, but by all sorts of low tricks and manoeuvres. If a trader trusts an Indian, his opponent uses all his endeavors to purchase the furs he may take, or prevent in any way his being paid. Each trader supports his favorite chief, which produces not only intestine commotions and divisions in the tribe, but destroys the influence of the principal chief, who should

¹⁰ American State Papers. *Indian Affairs*. II, 185.

¹¹ American State Papers. *Indian Affairs*. II, 201-3.

¹² Lisa, Pilcher, Carson, etc.	\$17,000
Seres & Francis Chouteau	4,000
Legarc, Chouteau & Bros.	6,000
The traders Roberdeau & Pepin, partners of Chouteau & Buthold	12,000
Pratt & Vasquer	7,000
Broseau & DeLorion	7,000

All St. Louis firms.

always be under the control of the government. The introduction of ardent spirits is one of the unhappy consequences of this opposition among traders. So violent is the attachment of Indians for it, that he who gives most is sure to obtain furs, while, should anyone attempt to trade without it, he is sure of losing ground with his antagonist; no bargain is ever concluded without it, and the law on that subject is evaded by their saying they give and not sell it. The traders being afraid to trust the Indians, they cannot make distant hunts; this and their attachment to whiskey induce them to hang about in the vicinities of trading establishments. As they take furs, they sell them for whiskey; the consequence is that but few furs are taken, as much of the hunting season is lost in intoxication and indolence. The Indians witnessing the efforts of these people to cheat and injure each other, and knowing no other or no more important white men, they readily imbibe the idea that all white men are alike bad. The imposing appearance of arms and equipments of white men, and the novelty and convenience of their merchandise, had impressed the Indians with a high idea of their power and importance; but the avidity with which beaver skins are sought after, the tricks and wrangling made use of, and the degradation submitted to in obtaining them, have induced a belief that the whites cannot exist without them, and made a great change in their opinion of our importance, our justice, and our power. . . . The impossibility of civilizing the Indians, when exposed to the temptations and delusions of interested traders, needs no comment." General Atkinson corroborated this testimony as to the traders. "So illiberal are the traders in their conduct toward each other, that, when one of them gives credit to a tribe to enable it to send out hunting and trapping parties, another despatches an agent, or agents, with a supply of goods and whiskey to dog the parties on their excursions, and, by the lure of a little whiskey, and some trifling articles, rob them of their peltries and furs as soon as they are taken from the animal's back, and the just creditor of his pay. This sort of conduct has very injurious consequences; for, as it is so generally practiced, every trader is afraid to give such credits as are necessary to enable the Indians to provide such articles as their women and children stand in need of; and the dogging gentry leave little or nothing in their hands at the end of their hunts to purchase with. . . . If this be the fact, (and I assure you it is) is it just or proper that the influence over the

Indians should be left in such hands?...It appears to be an easy matter for Congress to remedy the evil; and it would seem that they will, if they can believe those who are personally acquainted with the facts. To do it, all intercourse by individual traders with the Indians should be prohibited; and let the government take the whole trade into their own hands, or confide it to a single company with sufficient capital." Biddle went farther and urged the extension of the government factory to the exclusion of all private trade. "Let the government take the trade into their own hands; let the agents be honest, capable, and zealous; let their factories be established, not only where troops may be stationed, but at all points convenient for trading with the Indians; let certain prices be fixed, and let the compensation of the factors depend upon the value of the furs they obtain; let their accounts be rigidly inspected. The Indians would then be completely within the influence of the government; there would then be no difficulty in giving credit, because, if the Indian did not pay, he would find no one else to trust him; neither would it be necessary to debauch the Indians with whiskey. With credits to obtain the means of subsistence, and without the incitement of whiskey to indolence, they would make more furs than when surrounded by a host of traders."¹³

The committee to which this report was submitted was not ready to recommend so drastic a measure. They reported a bill authorizing the president to confine licenses to persons of good moral character and to revoke the licenses of traders who had transgressed the law regarding the sale of liquor; but Congress failed to adopt even these mild restrictions, and the regime of cut-throat competition was allowed to continue, only slightly modified by the existence of a dozen isolated factories whose methods and equipment were futile in comparison with the unscrupulous zeal of the private traders. In his report of 1820, Thomas L. McKinney, the superintendent of Indian Trade since 1816, protested that it was unreasonable to look for large results when alongside the government factory is arrayed "such a multitude of private interests, all of them aiming by separate plans of policy, and with scarcely any government control, to overcome and put down each other and whatever else opposes the realization of their separate and clashing interests." He recommended (in the Report of 1821) "that the capital invested in the government

¹³ American State Papers. *Indian Affairs*. II. 204.

trade be raised to \$500,000 in order that factories be planted on the upper Missouri, and urged that more effective restraints be placed on the private traders; that a license fee of \$200 be imposed and a bond of \$10,000 required; that whiskey be excluded under heavy penalty; and that the several firms engaged be under obligation to submit detailed accounts of their transactions with the Indians.

As the unparalleled resources of the Louisiana Territory became apparent, the private interests involved grew more powerful and insistent. Their special representative was Thomas H. Benton, the eloquent and influential senator from the new state of Missouri. In his "Thirty Years' View", Benton narrates the unequal battle, making no attempt to withhold his own prepossessions. "The experience of the Indian factory system is an illustration of the unfitness of the federal government to carry on any system of trade, the liability of the benevolent designs of the government to be abused, and the difficulty of detecting and redressing abuses in the management of our Indian affairs. . . . As a citizen of a frontier state, I had seen the working of the system—seen its inside working, and knew its operation to be entirely contrary to the benevolent designs of its projectors." He had communicated his views to the Secretary of War in 1820, "but he had too good an opinion of the superintendent (then Mr. Thomas L. McKinney) to believe that anything was wrong with the business and refused to countenance my proposition. Confident that I was right, I determined to bring the question before the Senate—did so—brought in a bill to abolish the factories and throw open the fur trade to individual enterprise, and supported the bill with all the facts and reasons of which I was master."¹⁴ The matter was referred to the Committee on Indian Affairs, which examined a number of witnesses, fur traders, Indian agents, factors, and the Superintendent of Indian Trade, and finally brought a bill providing for the abolition of the United States trading establishment with the Indian tribes, and the opening of the trade to licensed individuals. In support of this bill, Benton brought to bear his exhaustive knowledge of the men and interests involved and a fervid frontier enthusiasm that carried the Senate by storm. He proved that the goods offered by the government agents were not adapted to the wants of the Indians, citing in evidence the official invoices, and descanting at length and with truly Ben-

¹⁴ Benson's *Thirty Years' View*. I, chap. ix.

tonian eloquence on the civilizing influence of the eight gross of Jews'-harps found in the list. He demonstrated that the goods had been bought at extravagant rates and unsuitable places of certain eastern firms, when they might be had at lower cost in Pittsburg or St. Louis. For example, shot was purchased at Georgetown for 12½ cents a pound when it was being manufactured at Herculanum, thirty miles below St. Louis, for five cents; iron implements were purchased at Georgetown and were transported across the Alleghanies at heavy cost when the same articles could have been had at Pittsburg at lower prices. Fully one third the value of the goods, which the government undertook to sell at cost, consisted in transportation charges.¹⁵ Moreover, the furs received through the government factories were habitually sold at Georgetown, by no means the best fur market in the country, and at private contract, not at auction; a practice against which Mr. Astor had put in a vigorous protest. Beaver skins were sold at Georgetown for \$2 a pound which would have brought \$3 at St. Louis. The cost of getting the pelts to this eastern market amounted to 56 per cent of their selling price.¹⁶ This extravagant policy necessitated a scale of prices in factory sales that meant an advance of 40 to 60 per cent on the initial cost of the goods and enabled the private trader to underbid the government agent. The effect was that the Indians preferred to trade with the *coureurs du bois* sent out by the fur companies. Because of unbusinesslike and unenterprising methods, the government operations had dwindled from year to year until the business transacted at the factories was not sufficient to justify their existence. John R. Bell, one of the scientists of the Long expedition, testified before the Committee on Indian Affairs that he had noticed that the Indians, even in the immediate vicinity of the Missouri and the Kansas River posts, preferred to deal with private traders because these offered better goods at lower prices, while Ramsay Crooks stated that nine tenths of the Indian trade was in private hands. The operations of the year 1821, Benton summarized as

¹⁵ Freightage from Georgetown to St. Louis via New Orleans amounted to 4½ cents per lb., via Pittsburg, 9 cents. During the years 1811-1820, the

Cost of goods furnished to the factories amounted to....	\$466,874
Cost of transportation.....	110,542
Incidental expenses.....	20,728

¹⁶ Received from sales, 1805-1809.....	\$474,007
Cost of transportation.....	159,348
Contingent expenses.....	39,399

follows: "Green Bay sent nothing and no excuse. Red River sent nothing, factor dead. Marais des Cygnes sent nothing, just established. Fort Edwards does some better, sends \$44 worth of beeswax. Chicago does better still, sends \$329.98 worth of mink, raccoon, and muskrat skins. Osage better still, sends \$1,544.64 worth of skins, being \$444 less than the salary paid by the United States to the factor and sub-factor for their personal attention to this important concern. The other three, Prairie du Chien, Choctaw, and Arkansas, sent between them to the amount of about \$30,000."¹⁷ The total receipts for the year were \$31,452.74, not a large showing for a capital of \$300,000 and a salary list of \$19,250.

The witnesses cited by Senator Benton can hardly be regarded as disinterested. Ramsay Cooks, who gave the most damaging testimony as to the inefficiency of the official agents, was Astor's right hand in the extension of the business of the American Fur Company into the Missouri River field, while Benjamin O'Fallon, Agent of Indian Affairs on the Missouri, had been appointed at the instance of Mr. Astor himself. His invective against the government factory did not stop at inefficiency. "It is generally believed in Missouri, Illinois, and I believe in Michigan, and by almost every officer with whom I have been stationed, that the superintendent and factors are growing rich in the service."¹⁸ John Biddle, the newly appointed Indian agent at Green Bay, was hardly less severe. He said, "A useless institution has been kept up for years by plausible statements on paper, and by general declamation about atrocities which were never committed and horrors to be apprehended which must have excited the smile of the orator himself."¹⁹ There was evidently some antagonism between the Office of Indian Trade and the Indian agents, to whom was entrusted the function of licensing the individual traders, while between these last frontier interests there was a suspicious harmony.

The Superintendent of Indian Trade made before the Committee an able defence of the conduct of his office, calling attention to the fact that Congress had imposed a heavy handicap upon the official trade by requiring that goods be bought and

¹⁷ Benton's Abridgment of Congressional Debates. VII, 181-6. Cf. American State Papers. *Indian Affairs*. II, 352.

¹⁸ American State Papers. *Indian Affairs*. II, 328.

¹⁹ *Ibid.*

furs sold in the home markets. It was quite true that the stock in trade of the government factory was poor and costly. Some of the goods had been on hand for ten or twenty years. Many of the purchases had been made during and directly following on the recent war and at prices double or treble those now prevailing. The prices charged at the factories were not extravagant when the actual costs of transportation and incidental expenses were taken into account. An effort had been made to meet the criticism as to the stationary nature of the factory business by furnishing goods on credit to certain agents who carried them to the hunting grounds. The machination of private traders, notably of the American Fur Company, had prejudiced the operations of the government factories, particularly at Chicago and Green Bay, and these posts were about to be abandoned because the factors were thoroughly discouraged. Mr. McKinney quoted the former factor at Green Bay in proof of this assertion: "The agents of Mr. Astor hold out the idea that they will, ere long, be able to break down the factories; and they menace the Indian agents, and others who may interfere with them, with dismissal from office through Mr. Astor."²⁰ The use of liquor in their commerce with the Indians gave the private traders an illicit but all-prevailing advantage, and the government had no machinery adequate to the preventing of this traffic. One Kenzie, an agent of the American Fur Company was detected selling whiskey to the Indians at "Milwalky", but no measures had been taken to stop him. "The Indians are frequently kept in a state of intoxication, giving their furs, etc., at great sacrifice for whiskey. A return to reason will induce many of them to say who sold them whiskey; but Indian testimony is not received." Under these conditions and taking into account the fact that the system had never been finally established but merely continued from one three year period to another, it was not surprising that the government trade was declining, to quote George C. Sibley, the factor at Fort Osage (1811-1821) "like a wretch under sentence of death."

This defence of the policy recommended by Washington and maintained for a quarter of a century was but feebly seconded in the debate on the bill. In matter of fact, few of the eastern representatives knew anything about the business and the western men were much of Benton's mind. Lowrie of Pennsylvania stated

²⁰ American State Papers. *Indian Affairs*. II, 360.

his conviction that the Superintendent was an able and upright administrator, but he conceded that the system had proven ineffective, to some degree for lack of capital, but more from lack of enterprise. "Nothing but individual industry and attention is equal to such a business." The bill abolishing the government trading houses became law March 31, 1821; but a year was allowed for the winding up of the business.²¹ Benton forced through a supplementary act (May 6, 1822) providing that this task be entrusted not to the present incumbents, but to agents especially appointed for the purpose. He was well satisfied with the result. "When the system was closed up, and the inside of it seen, and the balance struck, it was found how true all the representations were which had been made against it. The Indians had been imposed upon in the quality and prices of the goods sold them; a general trade had been carried on with the whites as well as with the Indians; large per centums had been charged upon everything sold, and the total capital of \$300,000 was lost and gone."²²

The committee appointed to investigate McKinney's conduct of the Indian trade and to ascertain if possible what had become of the invested funds reported (March 1, 1823) that it was believed "the conductors of the Indian Trade were generally men of integrity and honesty, not deficient in talent or enterprise, or any of the requisite qualifications for discharging the duties of their respective stations,"²³ hence the failure to recover a sum equal to the original stock seemed "inexplicable." The ex-Superintendent proved by cross-examination of the government witnesses and by business correspondence submitted that he had not, during the eight years of his incumbency, engaged in private trade nor had he been under any form of obligation to the merchants who had furnished the major portion of the supplies; that in the estimation of men of experience Georgetown was the best place in the country to purchase Indian goods and to sell furs; that articles so bulky as to mean costly transportation had been purchased, so far as possible, at Pittsburg or St. Louis; that all purchases had been made in the open market and with rigid scrutiny of quantity and quality of goods furnished, while the system of accounting adopted was well calculated to preclude

²¹ "The law of 1811 was continued to June 3, 1822, and no longer."

²² Benton's *Thirty Years' View*. I, ch. ix.

²³ American State Papers. *Indian Affairs*. II, 417.

fraud. The heavy losses involved in the forced sales were fully accounted for in the fact that the factory buildings were practically valueless, the goods on hand were largely unsaleable because antiquated or damaged in transportation (*e. g.*, at Chicago the stock in trade sold for only 54 cents on the dollar), while in some instances combination on the part of local merchants had systematically depressed prices. At several of the posts there were outstanding debts which could not be collected. (*E. g.*, at the Choctaw factory these amounted to 33 per cent of the total assets.)²⁴

It was generally understood that the abolition of the government factories would be accompanied by a more rigid regulation of private trade, but these expectations were not fulfilled. The act of May 6, 1822, continued the function of granting licenses in the superintendent of Indian Affairs and the several agents in the field. The licensee must be a citizen of the United States, and was required to give bond for the due observance of the laws, in proportion to the capital involved but not to exceed \$5000. The term for a license for trade beyond the Mississippi was seven years, for trade among the nearer tribes two. A list of licensees must be returned to the Secretary of War each year for his inspection, but there was no stipulation as to moral character and no license fee was exacted. An attempt to restrict the sale of whiskey was made in the provision that "Stores and packages of goods of all Indian traders are to be searched upon suspicion or information that ardent spirits are carried into the Indian countries by said traders in violation of the act of 1802."

The triumph of *laissez faire* in the Indian trade was signaled by the immediate appearance in the Missouri River territory of two great rivals; the Rocky Mountain Fur Company, for which William Ashley²⁵ and Andrew Henry secured a license on April 11, 1822, and the American Fur Company, whose Western Department was organized in the same year under the immediate management of Ramsay Crooks. The career of these two enterprises has been so fully and brilliantly treated by Captain Chittenden that it need not be developed here.²⁶ Suffice to say that

²⁴ American State Papers. *Indian Affairs*. II, 417-27.

²⁵ Ashley's capital was \$8,000 and his bond \$4,000.

²⁶ H. M. Chittenden, *History of the American Fur Trade of the Far West*. F. P. Harper, 1902.

it was cut-throat competition in very truth. The rival traders did not hesitate to mislead each other by fraud and trickery, to rob each other's stores, to seduce and murder each other's men. Whiskey, the most effective lure of the red man, was carried up the river under the very noses of the government inspectors at Fort Leavenworth. It was difficult for the great barges of the American Fur Company to escape detection, but McKenzie, factor at Fort Union, solved the difficulty by setting up a distillery where the parti-colored Mandan corn was converted into "as fine a liquor as need be drunk." In justification, he pleaded that his rivals, Sublette and Campbell, had brought in quantities of alcohol. "Liquor I must have or quit any pretension to trade in this part."²⁷

The effect of a few years of freedom from restraint is made evident in reports rendered by Colonel Snelling and Governor Cass, witnesses whose intimate knowledge of the frontier and sympathy with its interests will not be called in question. Both speak of the upper Mississippi district. "The neighborhood of the trading houses where whiskey is sold presents a disgusting scene of drunkenness, debauchery, and misery; it is the fruitful source of all our difficulties, and of nearly all the murders committed in the Indian country. In my route from St. Peters to this place, I passed Prairie du Chien, Green Bay, and Mackinac; no language can describe the scenes of vice which there presented themselves; herds of Indians are drawn together by the fascination of whiskey, and they exhibit the most degraded picture of human nature I ever witnessed. The present year there have been delivered to the agent of the North American Fur Company at Mackinac (by contract) three thousand, three hundred gallons of whiskey, and two thousand, five hundred of high wines. An inquiry into the manner in which the Indian trade is conducted, and especially by the North American Fur Company is a matter of no small importance to the tranquility of the border."²⁸ Governor Cass was no less severe in his condemnation of the traders and recommended that "In granting licenses, a discretionary power should be vested in the agent. Many persons obtain licenses who are utterly unfit to enter the Indian

²⁷ H. M. Chittenden, *History of the American Fur Trade of the Far West*. I, 358.

²⁸ Col. J. Snelling, August 23, 1825. American State Papers. *Indian Affairs*. II, 661.

country. While there, they violate the laws, and produce the worst effects upon the morals of the Indians. From the nature of the trade, and the residence of the persons engaged in it, it is difficult, almost impossible to detect breaches of the laws committed in the Indian country. Offenders too often escape with impunity; and, although some restraint is imposed by the abundant security which is given by all the traders, still an irreproachable character in life is a better guaranty for the correct conduct of the applicant than any previous security or eventual fear of punishment.... It is also important that, when a person has been once detected in a breach of the laws regulating trade and intercourse with the Indians, he should be forever excluded from the Indian country. In the existing state of things, a trader may go on sinning against the law, year after year, without paying the penalty of misdemeanor or being discovered, and still be entitled to a license as often as he applies for it."²⁹

The demoralization of the Indians proceeded without let or hindrance until they could no longer be relied upon as hunters, and trapping parties of white men were substituted. These were less rapidly but no less surely demoralized by liquor and the credit system, until the frontier became a synonym for lawlessness and debauchery. Larpeur, who served the American Fur Company, first as engagee and later as clerk, during the years of its decline, bears abundant witness to the unscrupulous methods to which both the Great Company and the opposition were obliged to resort and to the deadly effects of whiskey on white men and redskins alike. Fur-bearing animals, the otter, beaver, and buffalo, were exploited with a ruthless disregard of every interest but the immediate profit of the party in the field. Twenty years of the competitive regime sufficed to exhaust the resources of the Cordilleran area and terminate the epoch of the fur trade in the United States.

It would be rash to assert that the adoption of the suggestion of Chouteau, Calhoun, Biddle, and Atkinson, that the monopoly of the Indian trade on the upper Missouri be granted to a large and responsible company, would have obviated the disastrous effects of competition; but one should in all fairness bear in mind the policy of the great monopoly of the Canadian fur

²⁹ Gov. Lewis Cass, 1826. *American State Papers. Indian Affairs.* II, 659. Cf. Account of private traders at Chickasaw Bluffs, 1819. *Nuttall's Journal*, 88. *Early Western Travels.* XIII, 88.

trade, the Hudson's Bay Company. Assured of exclusive control of the vast area between Labrador and the Columbia River, the management had every inducement to conserve its resources. The hunt was confined to the winter season, and the taking of females and young was discouraged. The loyalty and respect of the Indians was cultivated, and liquor rigorously banned from the trade. The factors were men of intelligence and character, such as Dr. McLoughlin of Fort Vancouver, and their decisions were accepted as having the force of law by clerk, engagee, and free trapper alike. Nathaniel J. Wyeth was assuredly not a partisan of the Hudson's Bay Company, but in his *Memoir on the Fur Trade*, submitted to the House Committee on Foreign Affairs in 1839, he thus contrasts the British and American policies: "By the indiscriminate trading of all persons with the Indians, individual safety, profit, national policy, and good of the Indians are alike sacrificed. Where one murder is committed on English parties or individuals, I am certain there are more than ten on our people. With the British traders everything is different; one company has the exclusive control of the trade in all places, except where the Americans have enjoyed an equal right, west of the mountains. They can trade as many beaver from a district as they think it will bear without diminishing the breeding stock, and thus continue their trade instead of destroying it. They can prevent the beaver being taken except at the best season. They can refuse supplies of ammunition beyond necessary and immediate consumption, and thereby prevent any accumulation dangerous to themselves. Besides, and stranger than all which, is the fact that the white man's inventions in the hands of one tribe at once become articles of absolute necessity to all others; and, there being but one party from whom to obtain them, they must be at peace with that party. Thus the trader who is without competition in an Indian country, however weak his force, not only may compel the Indians to respect him and his property, but, if he chooses, prevent one tribe from warring with another; the practical illustration of which is, that in all the country where the Hudson's Bay Company have exclusive control, they are at peace with the Indians, and the Indians among themselves. Wars with the Indians on the British frontiers have long since ceased; and this has been affected by giving the control of the Indian trade to one company and keeping control of that company in their own hands. The power to revoke the

charter of the Hudson's Bay Company renders them subservient to the will of the government when they have any object in view."

The American fur traders had no such code of morals. Competition forced the best of them to sell cheap whiskey to Indians and trappers alike and cheat them out of their furs. The employees were not bred to the business as were the Scotchmen who entered the service of the Hudson's Bay Company with full expectation of sure and speedy advancement. The former were often wild young men, weary of the restraints of civilization, or renegades, ready and ripe for any crime. Wyeth's Memoir bears out this statement. "A further evil that attends our loose laws and their looser execution is that the Indian country is becoming a receptacle for fugitives from justice. The preponderance of bad character is already so great amongst [our] traders and their people, that crime carries with it little or no shame." The frontiersman was bred to contempt of the Indians and preferred force to the conciliatory policy instinctive with the French Canadians and half-breeds. Finally during the epoch of the fur trade, there was no law, no police, no civil authority in the territory between the Missouri River and the Rockies, whereas the British government had constituted the Hudson's Bay Company factors justices of the peace, making them responsible for the maintenance of peace and order. A clerk in Dr. McLoughlin's employ at Fort Vancouver thus describes the competitive regime prevailing in the United States. "In the American mode of commerce with the natives, there was no unity of purpose; no communion of interest, no fraternity of feeling, no system, no guiding spirit to direct and control it: but it was a loose, dissipated, jealous sort of thing—jealous not only of British rivalry, but of American rivalry—and eager to grasp at any article of trade, however worthless, and by any means, however unworthy."³⁰

³⁰ Dunn, *Oregon and the History of the British North American Fur Trade*, p. 228.

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OF THE

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JULY, 1911

HAND BOOK

OF THE

AMERICAN ECONOMIC ASSOCIATION

1911

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The Bulletin of the American Economic Association is published six times a year, in March, April, June, July, September, and December.

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AMERICAN ECONOMIC ASSOCIATION

The American Economic Association is an organization composed of persons interested in the study of political economy or the economic phases of political and social questions. As may be seen by examining the list of members and subscribers printed in this volume, not only are all the universities and the most prominent colleges in the country represented in the Association by their teachers of political economy and related subjects, but a large number of members come from among business men, journalists, lawyers, politicians, and others interested in the theories of political economy or, more often, in their applications to social life. There are, further, nearly two hundred subscribers, including the most important libraries of this country. The Association has besides a growing representation in foreign countries.

The annual meetings give opportunity for social intercourse; they create and cement acquaintanceship and friendship between teachers in different institutions, and bring into touch with each other students and business men interested in the social and economic problems of the day. The meetings aim to counteract any tendency to particularism which the geographical separation and the diverse interests might otherwise foster. The annual meeting for 1911 will be held in Washington, D. C., between Christmas and New Year's.

The Publications of the Association, a complete list of which is printed at the end of this volume, were begun in March, 1886. The first series of eleven volumes was completed by a general index in 1897. The second series, comprising two volumes, was published in 1897-1899, and in addition thereto the Association issued during 1896-1899 four volumes of Economic Studies. In 1900 a third series of Quarterly Publications was begun with the Papers and Proceedings of the Twelfth Annual Meeting, and has been continued since with ample amount and variety of matter. The *Economic Bulletin*, issued quarterly and devoted to bibliography and current notes, was also published by the Association during the three years, 1908, 1909, and 1910.

Beginning with the present year, 1911, the Association is publishing the *American Economic Review*, a quarterly journal de-

voted to articles on economic subjects, book reviews, and a classified bibliography of economic publications.

The American Economic Association is the organ of no party, sect, or institution. It has no creed. Persons of all shades of economic opinion are found among its members, and widely different views are given a hearing in its annual meetings and through its publications.

With the exception of the editor of the *American Economic Review*, the officers of the Association receive no pay for their services. Its entire receipts are expended for the editing, printing, and circulation of the publications and for the annual meetings. Any member, therefore, may regard his annual dues either as a subscription to an economic publication, a payment for membership in a scientific association, or a contribution to a publication fund for aiding the publication of valuable manuscript.

CONSTITUTION OF THE AMERICAN ECONOMIC ASSOCIATION

(AS REVISED AT THE ANNUAL MEETING, DECEMBER, 1905)

ARTICLE I

NAME

This society shall be known as the AMERICAN ECONOMIC ASSOCIATION.

ARTICLE II

OBJECTS

1. The encouragement of economic research, especially the historical and statistical study of the actual conditions of industrial life.
2. The issue of publications on economic subjects.
3. The encouragement of perfect freedom of economic discussion. The Association as such will take no partisan attitude, nor will it commit its members to any position on practical economic questions.

ARTICLE III

MEMBERSHIP

1. Any person interested in economic inquiry may, on the nomination of a member, be enrolled in this Association by paying \$3, and after the first year may continue a member by paying an annual fee of \$3.
2. On payment of \$50 any person may become a life member, exempt from annual dues.
3. Foreign economists of distinction, not exceeding twenty-five in number, may be elected honorary members of the Association.
4. Every member is entitled to receive, as they appear, all reports and publications of the Association.

ARTICLE IV

OFFICERS

The officers of the Association shall be elected at the annual meeting and shall consist of a President, three Vice-Presidents, a Secretary, and a Treasurer, whose term of office shall be one year; six members of the Publication Committee and six elected members of the Executive Committee, whose term of office shall be three years, and who shall be so classed that the term of two members of each committee shall expire each year; provided that the office of Secretary and that of Treasurer may be filled by the same person. The Executive Committee shall consist of the President, the Vice-Presidents, the Secretary, the Treasurer, the Chairman of the Publication Committee, the ex-Presidents, and six elected members.

ARTICLE V

DUTIES OF OFFICERS

1. The President of the Association shall preside at all meetings of the Association and of the Executive Committee, and, in consultation with the Executive Committee, shall prepare the programs for the annual meetings. In case of his disability, his duties shall devolve upon the Vice-Presidents in the order of their election, upon the Secretary, and upon the Treasurer.

2. The Secretary shall keep the records of the Association and perform such other duties as the Executive Committee may assign to him.

3. The Treasurer shall receive and have the custody of the funds of the Association, subject to the rules of the Executive Committee.

4. The Executive Committee shall have charge of the general interests of the Association in the interval between annual meetings. It may fill vacancies in the list of officers, and may adopt any rules or regulations for the conduct of its business not inconsistent with this constitution or with rules adopted at the annual meetings. It shall act as a committee on time and place of meeting, and perform such other duties as the Association shall delegate to it. A quorum shall consist of five members, other than the Vice-Presidents and the ex-Presidents.

5. The Publication Committee shall have charge of the publications of the Association.

ARTICLE VI

AMENDMENTS

Amendments, after having been approved by a majority of the Executive Committee, may be adopted by a majority vote of the members present at any regular meeting of the Association.

LIST OF MEMBERS

*Life Members.

†Subscribers.

‡Honorary Members.

NOTE.—*The figures in parentheses after the name of a member indicate the year from which dates his continuous membership.*

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 BRADLEY, M. C., 77 Bartlett Ave., Arlington, Mass. (1910)
 BRADY, ARTHUR W., Anderson, Ind. (1909)
 BRALEY, HENRY K., 151 Kilsyth Road, Boston, Mass. (1910)
 BRANDEIS, ALBERT S., Louisville, Ky. (1910)
 BRANDT, LILIAN, 105 E. 22d St., New York City. (1909)
 BRANTINGHAM, C. S., Rockford, Ill. (1911)
 BREAUX, JOSEPH A., 1728 Canal St., New Orleans, La. (1911)
 BRECKENRIDGE, ROELIFF MORTON, Bronxville, Westchester Co., N. Y. (1894)
 BRECKENRIDGE, S. P., University of Chicago, Chicago, Ill. (1909)
 BREEDLOVE, JOSEPH PENN, Durham, N. C. (1904)
 BRENNAN, THOMAS, 334 Tremont Bldg., Boston, Mass. (1911)
 †BRETSCHNEIDER, MAX, 60 Via del Tritone, Rome, Italy.
 BREWER, EDWARD M., 27 Kilby St., Boston, Mass. (1909)
 BREWSTER, FREDERICK F., 840 Whitney Ave., New Haven, Conn. (1911)
 BRIGHT, EDGAR H., 325 Baronne St., New Orleans, La. (1910)
 BRIGHT, ROBERT S., 618 Stephen Girard Bldg., Philadelphia, Pa. (1909)
 BRINDLEY, JOHN E., Iowa State College, Ames, Iowa. (1908)
 BRINSMADE, ROBERT B., Morgantown, W. Va. (1911)

- BRISCO, NORRIS A., 527 W. 124th St., New York City. (1906)
- BROCK, J. E., Mississippi Valley Trust Co., St. Louis, Mo. (1910)
- BRODSKY, RANDOLPH J., 359 W. 117th St., New York City. (1911)
- BROGAN, FRANCIS A., Omaha, Nebr. (1910)
- BRONSON, HOWARD G., Box 19, Logan Hall, University of Pennsylvania, Philadelphia, Pa. (1909)
- BRONSON, SAMUEL L., New Haven, Conn. (1890)
- BROOKINGS, ROBERT S., Samuel Cupples W. W. Co., St. Louis, Mo. (1910)
- †BROOKLYN PUBLIC LIBRARY, 26 Brevoort Place, Brooklyn, N. Y.
- BROOKMIRE, JAMES H., 315 N. 4th St., St. Louis, Mo. (1909)
- BROOKS, CHARLES T., 808 Perry-Paine Bldg., Cleveland, Ohio. (1905)
- BROOKS, JOHN GRAHAM, 8 Francis Ave., Cambridge, Mass. (1887)
- BROOKS, JOHN H., 423 Spruce St., Scranton, Pa. (1911)
- BROTHERTON, ROBERT ERNEST, Box 292, McCloud, Calif. (1911)
- BROUGH, CHARLES HILLMAN, Fayetteville, Ark. (1909)
- BROWN, EDWARD THOMAS, Wolcott, N. Y. (1905)
- BROWN, FRANCIS S., 5927 Drexel Road, Philadelphia, Pa. (1910)
- BROWN, HARRY G., 691 Yale Station, New Haven, Conn. (1909)
- BROWN, HERBERT JENKINS, Berlin Mills Co., Portland, Me. (1909)
- BROWN, JACOB F., 274 Summer St., Boston, Mass. (1909)
- †BROWN UNIVERSITY LIBRARY, Providence, R. I.
- BROWNE, ALDIS B., 1855 Wyoming Ave., Washington, D. C. (1911)
- BROWNE, G. MORGAN, 44 Pine St., New York City. (1901)
- BRUBAKER, HOWARD, 80 Washington Square, New York City. (1911)
- BRUCE, ANDREW A., Grand Forks, N. D. (1911)
- BRUCE, ROSCOE C., 1327 Columbia Road, Washington, D. C. (1902)
- BRUMMER, LEON, 277 Broadway, New York City. (1901)
- BRUNNER, FREDERICK, 2543 Grand Ave., Bronx, New York City. (1911)
- BRYAN, ENOCH A., Pullman, Wash. (1910)
- BRYAN, JOHN STEWART, *The News Leader*, Richmond, Va. (1911)
- †BRYN MAWR COLLEGE LIBRARY, Bryn Mawr, Pa.
- BUCKHOES, M. G., University of Montana, Missoula, Mont. (1909)
- BUCKLER, GEORGIANA G., C/o Messrs. Drummond & Co., Charing Cross, London, Eng. (1905)
- BUCKLER, WILLIAM HEPBURN, C/o Messrs. Drummond & Co., Charing Cross, London, Eng. (1903)
- BUCKLIN, GEORGE A., JR., American Consulate, Apartado 279, San Luis Potosi, Mexico. (1904)
- †BUCKNELL UNIVERSITY LIBRARY, Lewisburg, Pa.
- BUETTNER, KARL F. W., 3634 Indiana Ave., Chicago, Ill. (1909)
- †BUFFALO PUBLIC LIBRARY, Buffalo, N. Y.
- BULKLEY, ERASTUS W., 683 W. 7th St., Plainfield, N. J. (1910)
- BULLOCK, CHARLES E., Canton, Pa. (1909)
- BULLOCK, CHARLES JESSE, Cambridge, Mass. (1894)
- BULLOCK, MATTHEW W., 342 Greensferry Ave., Atlanta, Ga. (1910)
- BURBANK, HAROLD H., Hanover, N. H. (1909)
- BURDICK, CHARLES K., 200 N. Delaware St., Indianapolis, Ind. (1909)
- †BUREAU OF LABOR STATISTICS, Dept. of Labor, Albany, N. Y.
- BURGESS, JOHN WILLIAM, 323 W. 57th St., New York City. (1890)

- BURKE, THOMAS, Burke Bldg., Seattle, Wash. (1910)
- *BUSH, IRVING T., 100 Broad St., New York City. (1911)
- BUTLER, CHARLES M., Princeton, N. J. (1911)
- BUTLER, ELIZABETH B., Room 615, 105 E. 22d St., New York City. (1908)
- BUTLER, MARY MARSHALL, 263 Palisade Ave., Yonkers, N. Y. (1904)
- BUTLER, WILLIAM E., 90 Tremont St., Boston, Mass. (1909)
- †BUTTE CITY FREE PUBLIC LIBRARY, Butte City, Mont.
- BUTTERFIELD, KENYON LEECH, Amherst, Mass. (1903)
- BYERS, MORTON L., Room 320 Title Guarantee Bldg., St. Louis, Mo. (1911)
- BYRNES, CLARA, Normal College, 68th St., and Park Ave., New York City. (1909)
- CABANNE, J. CHARLES, 4334 Westminster Blvd., St. Louis, Mo. (1911)
- CALDERON, YGNACIO, 1633 16th St., N. W., Washington, D. C. (1909)
- CALDWELL, HOWARD WALTER, Station A, Lincoln, Nebr. (1886)
- †CALIFORNIA STATE LIBRARY, Sacramento, Calif.
- †CALIFORNIA, UNIVERSITY OF, Berkeley, Calif.
- CALLENDER, GUY STEVENS, Forrest St., Route No. 50, New Haven, Conn. (1895)
- CALVERT, JOSEPH F., 381 Fourth Ave., New York City. (1908)
- †CAMMERMEYERS BOGHANDEL, Karl Johans Gade 41-43, Kristiania, Norway.
- CAMPBELL, GORDON J., 21 Butler Place, Northampton, Mass. (1911)
- CAMPBELL, NORMAN MADISON, Colorado Springs, Colo. (1902)
- CAMPBELL, PETER F., 657 Broad St., Newark, N. J. (1910)
- CAMPBELL, ROBERT A., State Library, Sacramento, Calif. (1908)
- CAMPBELL, R. G., Lexington, Va. (1911)
- CAMPBELL, WILLIAM, 442 Wabash Ave., Chicago, Ill. (1910)
- †CANADIAN LIBRARY OF PARLIAMENT, Ottawa, Can.
- CANCE, ALEXANDER E., Massachusetts Agricultural College, Amherst, Mass. (1908)
- CAPEN, EDWARD WARREN, 38 Greenough Ave., Jamaica Plain, Mass. (1906)
- CAPPER, ARTHUR, Topeka, Kan. (1909)
- CARLTON, FRANK T., 1010 Porter St., Albion, Mich. (1905)
- *CARNEGIE, ANDREW, 5 W. 51st St., New York City. (1886)
- †CARNEGIE FREE LIBRARY, Allegheny, Pa.
- †CARNEGIE LIBRARY (Periodical Dept.), Schenley Park, Pittsburg, Pa.
- CARPENTER, CHARLES E., 250 W. Somerset St., Philadelphia, Pa. (1910)
- CARPENTER, G. L., P. O. Box 385, Boston, Mass. (1911)
- CARPENTER, GEORGE O., 12 Portland Pl., St. Louis, Mo. (1901)
- CARPENTER, S. J., Tremont Lumber Co., Winnfield, La. (1911)
- CARR, JAMES A., 510 Pine St., St. Louis, Mo. (1911)
- CARSTENS, C. C., 43 Mt. Vernon St., Boston, Mass. (1909)
- CARVER, MARSHALL HAMPTON, Natchitoches, La. (1911)
- CARVER, THOMAS NIXON, 7 Kirkland Road, Cambridge, Mass. (1893)
- CASE, MILLS E., Public Service Commission, Tribune Bldg., New York City. (1910)
- CATLIN, WARREN B., 262 Maine St., Brunswick, Me. (1909)
- CATOR, GEORGE, 803 St. Paul St., Baltimore, Md. (1901)
- CAVE, W. ALFRED, New Hampton, Iowa. (1910)
- †CEDAR RAPIDS PUBLIC LIBRARY, Cedar Rapids, Iowa.
- CHADDOCK, ROBERT E., University of Pennsylvania, Philadelphia, Pa. (1909)

- CHAMBERLAIN, GLENN P., C/o Grand Rapids Gas Light Co., Grand Rapids, Mich. (1911)
- CHANDLER, ALFRED DUPONT, Brookline, Mass. (1888)
- CHANDLER, HENRY ALFRED ERNEST, University of Arizona, Tucson, Ariz. (1909)
- CHANDLER, PERCY M., Third and Walnut Sts., Philadelphia, Pa. (1910)
- CHAPIN, ROBERT COIT, Beloit Wis. (1893)
- CHAPIN, ROBERT W., 39 Lombard St., London, E. C., Eng. (1911)
- CHAPMAN, PAGE, 55 Wall St., New York City. (1911)
- CHAPMAN, RONALD ERIC, Sultan, Wash. (1910)
- CHAPMAN, SYDNEY J., Burnage Lodge, Levenshulme, Manchester, Eng. (1910)
- CHAPMAN, WILLIAM P., 154 Nassau St., New York City. (1910)
- CHASE, FRANK F., Riverside, Calif. (1910)
- CHASE, GEORGE C., 16 Frye St., Lewiston, Me. (1910)
- CHASE, GEORGE S., 84 State St., Boston, Mass. (1910)
- CHASE, HARVEY STUART, Room 1014, 84 State St., Boston, Mass. (1902)
- CHASE, SIMEON B., King Philip's Mills, Fall River, Mass. (1890)
- CHASE, WARREN D., Hartford, Conn. (1911)
- CHASE, WILLIAM ARTHUR, 716 Title & Trust Bldg., Chicago, Ill. (1911)
- CHATFIELD-TAYLOR, H. C., 100 Washington St., Chicago, Ill. (1910)
- *CHEN, HUAN-CHANG, Hartley Hall, Columbia University, New York City. (1909)
- *CHEN, SHAO-KWAN, Hartley Hall, Columbia University, New York City. (1910)
- CHERINGTON, PAUL T., 45 Conant Hall, Cambridge, Mass. (1909)
- CHEW, NY POON, 809 Sacramento St., San Francisco, Calif. (1909)
- †CHICAGO CITY CLUB, 228 S. Clark St., Chicago, Ill.
- †CHICAGO PUBLIC LIBRARY, Chicago, Ill.
- CHILLINGWORTH, F., New Haven, Conn. (1911)
- CHISHOLM, FRANK P., 27 Walden St., Cambridge, Mass. (1911)
- CHOWN, GEORGE Y., Kingston, Ont., Can. (1906)
- CHUTE, CHARLES L., 105 East 22d St., New York City. (1910)
- †CINCINNATI PUBLIC LIBRARY, Cincinnati, Ohio.
- †CINCINNATI, UNIVERSITY OF, LIBRARY, Cincinnati, Ohio.
- CLAGHORN, KATE HOLLADAY, 81 Columbia Heights, Brooklyn, N. Y. (1901)
- CLAPP, CLIFT ROGERS, 60 State St., Boston, Mass. (1909)
- CLARK, Mrs. BENJAMIN B., Red Oak, Iowa. (1911)
- CLARK, DAVID TAGGART, Williamstown, Mass. (1909)
- CLARK, EDWIN C., Northampton, Mass. (1911)
- CLARK, JOHN BATES, 635 W. 115th St., New York City. (1886)
- CLARK, JOHN M., Amherst, Mass. (1909)
- *CLARK, JOHN SPENCER, 110 Boylston St., Boston, Mass. (1887)
- *CLARK, MARTIN, 91 Erie Co. Bank Bldg., Buffalo, N. Y. (1887)
- †CLARK UNIVERSITY LIBRARY, Worcester, Mass.
- CLARK, VICTOR S., University Club, Honolulu, H. T. (1906)
- CLARK, WALTER ERNEST, 824 St. Nicholas Ave., New York City. (1902)
- CLARK, WILLIAM J., 30 Church St., New York City. (1910)
- CLARKE, ENOS, Kirkwood Station, St. Louis, Mo. (1901)
- CLARKE, SAMUEL B., 32 Nassau St., New York City. (1910)

- CLASSEN, ANTON H., Terminal Bldg., Oklahoma City, Okla. (1910)
- CLAYTON, W. S., Cor. Sunol and Park Ave., San José, Calif. (1911)
- CLEVELAND, FREDERICK ALBERT, 261 Broadway, New York City. (1904)
- †CLEVELAND PUBLIC LIBRARY, (Reference Dept.), Cleveland, Ohio.
- CLEWS, HENRY, 17 Broad St., New York City. (1909)
- CLIFFORD, EDWARD, 125 W. Monroe St., Chicago, Ill. (1911)
- CLOW, FREDERICK REDMAN, Oshkosh, Wis. (1894)
- CLYMER, PAUL K., Ithaca, N. Y. (1910)
- †COBURN LIBRARY, Colorado College, Colorado Springs, Colo.
- COCHRAN, ALFRED J., Dawson, Pa. (1911)
- COCHRANE, ALEXANDER, 55 Kilby St., Boston, Mass. (1909)
- †COE BROTHERS, Springfield, Ill.
- COE, ERNEST FRANCIS, Edgewood, New Haven, Conn. (1911)
- COFFIN, C. A., 30 Church St., New York City. (1910)
- COHEN, JULIUS HENRY, 15 William St., New York City. (1910)
- †COHN, GUSTAV, Göttingen, Germany. (1893)
- COLE, WILLIAM MORSE, 55 Brewster St., Cambridge, Mass. (1908)
- COLEMAN, GEORGE W., 177 W. Brookline St., Boston, Mass. (1910)
- COLEMAN, J. A., Everett, Wash. (1911)
- COLLENS, ARTHUR MORRIS, C/o Hay & Boynton, 60 Broadway, New York City. (1910)
- COLLINS, DAVID EDWARD, 710 Crocker Bldg., San Francisco, Calif. (1904)
- †COLORADO, UNIVERSITY OF, LIBRARY, Boulder, Colo.
- COLT, Mrs. WILLIAM L., Bronxville, Westchester Co., N. Y.
- †COLUMBUS INDUSTRIAL INSTITUTE AND COLLEGE, Columbus, Miss.
- COMAN, KATHARINE, Wellesley, Mass. (1886)
- COMINS, EDWARD P., 200 Devonshire St., Boston, Mass. (1910)
- COMMONS, JOHN ROGERS, University of Wisconsin, Madison, Wis. (1888)
- CONANT, CHARLES A., 32 Liberty St., New York City. (1901)
- †CONNECTICUT STATE LIBRARY, Hartford, Conn.
- †CONRAD, JOHANNES, Halle a/S, Germany. (1888)
- *COOK, CHARLES C., 2222 6th St., N. W., Washington, D. C. (1893)
- COOK, HOWARD HAMBLETT, Room 606, 30 Church St., New York City. (1899)
- COOLEY, CHARLES HORTON, Ann Arbor, Mich. (1890)
- COOLIDGE, Mrs. MARY ROBERTS, Dwight Way End, E., Berkeley, Calif. (1898)
- COOLIDGE, THOMAS JEFFERSON, 64 Ames Bldg., Boston, Mass. (1891)
- COOPER, HERBERT W., 1714 Sixth Ave., Moline, Ill. (1910)
- COOPER, JOHN A., First Natl. Bank Bldg., Chicago, Ill. (1910)
- COPELAND, MELVIN T., New York University, New York City. (1909)
- CORNELL, F. H., 1357 70th St., Brooklyn, N. Y. (1910)
- †CORNELL UNIVERSITY LIBRARY, Ithaca, N. Y.
- COSHOW, OLIVER PERRY, Roseburg, Ore. (1910)
- COSTIGAN, GEORGE PURCELL, JR., 87 E. Lake St., Chicago, Ill. (1904)
- COUGHLAN, MARTIN A., 5 Chapel St., Orange, N. J. (1910)
- COULSON, R. E., Bureau of Corporations, Washington, D. C. (1909)
- COULTER, JOHN I., Census Bureau, Washington, D. C. (1908)
- COWAN, J. M., 301 Third Natl. Bank Bldg., St. Louis, Mo. (1911)
- COWDERY, EDWARD G., 157 Michigan Ave., Chicago, Ill. (1901)
- COWLES, JAMES L., 361 Broadway, New York City. (1910)

- COX, ROBERT LYNN, 1 Madison Ave., New York City. (1910)
- CRAFT, J. G., Hartwell, Ga. (1909)
- CRAIG, NELVILLE B., 3338 N. 15th St., Philadelphia, Pa. (1910)
- CRANDALL, BILLINGS F. S., Norwich, Conn. (1910)
- CRANDON, FRANK P., Chicago & Northwestern Ry. Co., Chicago, Ill. (1909)
- CRANE, A. A., First National Bank, Minneapolis, Minn. (1911)
- CRANE, CHARLES R., 810 Fine Arts Bldg., Chicago, Ill. (1901)
- CRIDER, GEORGE A., Carlisle, Pa. (1910)
- CRISSEY, M. H., Tucson, Ariz. (1907)
- CROCKER, FRANK L., 5 Nassau St., New York City. (1909)
- CROCKER, GEORGE GLOVER, 1016-1023 Old South Bldg., Boston, Mass. (1896)
- CROLY, HERBERT, Windsor, Vermont. (1911)
- CROOK, JAMES WALTER, Amherst, Mass. (1892)
- CROSS, IRA BROWN, Box 143, Stanford University, Calif. (1909)
- CROSS, WILLIAM THOMAS, Columbia, Mo. (1909)
- CROSSETT, EDWARD C., Davenport, Iowa. (1911)
- CROWELL, JOHN FRANKLIN, 17 W. 91st St., New York City. (1888)
- CRUKSHANK, ALFRED B., 43 Cedar St., New York City. (1909)
- CRUM, FRED STEPHEN, Prudential Insurance Co., Newark, N. J. (1894)
- CULBERTSON, WILLIAM S., 2957 Newark St., Cleveland Park, Washington, D. C. (1908)
- CUMMINGS, EDWARD, 104 Irving St., Cambridge, Mass. (1895)
- CUMMINS, ALBERT W., Wilmington, Del. (1910)
- CURRIER, GUY W., 84 State St., Boston, Mass. (1910)
- CURRY, HARRY J., 105 S. La Salle St., Chicago, Ill. (1911)
- CURTIS, F. KINGSBURY, 126 E. 62d St., New York City. (1909)
- CURTISS, ELMER L., 89 State St., Boston, Mass. (1911)
- CUSHING, GRAFTON D., 719 Barristers Hall, Boston, Mass. (1910)
- CUSHING, JOHN PEARSONS, New Haven, Conn. (1894)
- CUSHMAN, CHARLES F., 35 Congress St., Boston, Mass. (1909)
- CUSTIS, VANDERVEER, University Station, Seattle, Wash. (1904)
- CUTLER, JAMES ELBERT, 11322 Hessler Road, Cleveland, Ohio. (1904)
- CUTTING, R. FULTON, 32 Nassau St., New York City. (1894)
- DABNEY, RICHARD HEATH, Charlottesville, Va. (1904)
- DAGGETT, STUART, University of California, Berkeley, Calif. (1906)
- DAISH, JOHN BROUGHTON, 723 15th St., N. W., Washington, D. C. (1887)
- DANIELS, WINTHROP MORE, Princeton, N. J. (1894)
- +DARTMOUTH COLLEGE LIBRARY, Hanover, N. H.
- DAVENPORT, EUGENE, Champaign, Ill. (1909)
- DAVENPORT, HERBERT JOSEPH, University of Missouri, Columbia, Mo. (1905)
- DAVIES, EMIL, British Foreign & Colonial Corporation, 57 Bishopsgate, London, E. C., Eng. (1911)
- *DAVIS, ANDREW MCFARLAND, 10 Appleton St., Cambridge, Mass. (1901)
- DAVIS, DABNEY C. T., Charleston, W. Va. (1910)
- DAVIS, EDWARD HATTON, West Lafayette, Ind. (1902)
- DAVIS, H. B., California, Pa. (1911)
- *DAVIS, HORACE, 1800 Broadway, San Francisco, Calif. (1887)
- DAVIS, NATHANIEL FRENCH, 159 Brown St., Providence, R. I. (1909)
- DAVIS, WARREN J., Racine, Wis. (1911)

- DAVISON, L. LEROY, 400 Russell St., West Lafayette, Ind. (1911)
 DAWSON, MILES M., 141 Broadway, New York City. (1911)
 DAY, ARTHUR MORGAN, Danbury, Conn. (1899)
 DAY, CLIVE, 44 Highland St., New Haven, Conn. (1908)
 DAY, EDMUND E., 50 Perkins Hall, Cambridge, Mass. (1907)
 DAY, EDWARD A., 765 Broad St., Newark, N. J. (1910)
 DAY, HENRY B., 321 Chestnut St., West Newton, Mass. (1909)
 DAY, JAMES FRANK, Fillmore, Utah. (1908)
 DEACON, WILLIAM J. V., Topeka, Kansas. (1911)
 *DEAN, CHARLES A., Dean Bldg., 60 India St., Boston, Mass. (1901)
 DEAN, M. A., 1228 Hinman Ave., Evanston, Ill. (1910)
 DE BOWER, HERBERT F., 315 Dearborn St., Chicago, Ill. (1909)
 DECKARD, LEX V., Okmulgee, Okla. (1910)
 DECKER, MARTIN S., Public Service Commission, Albany, N. Y. (1910)
 DE COURCY, CHARLES A., Lawrence, Mass. (1909)
 DE FOREST, ROBERT W., 7 Washington Square, New York City. (1901)
 DEIBLER, F. S., Evanston, Ill. (1908)
 DEICHES, MAURICE, 271 Broadway, New York City. (1909)
 DE LEON, EDWIN, 52 William St., New York City. (1909)
 DEMING, HORACE EDWARD, 11-13 William St., New York City. (1904)
 DEMING, JAMES LEVI, 24 Everit St., New Haven, Conn. (1909)
 DEMUTH, JOHN ARTHUR, 254 Elm St., Oberlin, Ohio. (1909)
 DENNIS, L., 49 Ridge St., Orange, N. J. (1910)
 DENNISON, HENRY S., South Framington, Mass. (1911)
 †DEPUTY MINISTER, Dept. of Labour, Ottawa, Canada.
 DERR, CHARLES H., 10 Woosung Road, Shanghai, China. (1909)
 DE SANNO, A. P., 1232 Race St., Philadelphia, Pa. (1910)
 †DETROIT PUBLIC LIBRARY, Detroit, Mich.
 DEVECMON, WILLIAM C., Cumberland, Md. (1910)
 DEVINE, EDWARD THOMAS, 105 E. 22d St., New York City. (1893)
 DEWES, ARTHUR B., 3453 Humphrey St., St. Louis, Mo. (1911)
 DEWEY, DAVIS RICH, Massachusetts Inst. of Technology, Boston, Mass. (1886)
 DEWSNUP, ERNEST RITSON, 812 West Hill St., Champaign, Ill. (1909)
 DICKINSON, ARTHUR LOWES, 54 William St., New York City. (1910)
 DICKMAN, JOHN WILLIAM, Fayette, Iowa. (1901)
 *DILL, ARTHUR C., 86 Bible House, New York City. (1907)
 DILLAWAY, WILLIAM E. S., 45 Milk St., Boston, Mass. (1911)
 DIMICK, WALTER WARREN, 220 Broadway, New York City. (1909)
 DIMOCK, GEORGE E., 907 N. Broad St., Elizabeth, N. J. (1910)
 DIX, S. M., 31 Nassau St., New York City. (1910)
 DIXON, FRANK HAIGH, Hanover, N. H. (1894)
 DOANE, S. E., P. O. Drawer N, Cleveland, Ohio. (1910)
 DODGE, GRACE HOADLEY, 262 Madison Ave., New York City. (1890)
 DOHERTY, HENRY L., 60 Wall St., New York City. (1909)
 DOMERATZKY, LOUIS, Bureau of Manufactures, Washington, D. C. (1908)
 DONALDSON, CHARLES SNYDER, 1335 F St., N. W., Washington, D. C. (1911)
 DONHAM, WALLACE B., 3 Ames Bldg., Boston, Mass. (1909)
 DORNEY, IELAND DALE, 812 Catherine St., Ann Arbor, Mich. (1909)
 DOTEN, CARROLL W., 58 Garfield St., Cambridge, Mass. (1902)

- DOUGHTY, EDGAR M., 44 Court St., Brooklyn, N. Y. (1910)
- DOUGLAS, CHARLES H., 120 Boylston St., Boston, Mass. (1909)
- DOUGLAS, ROBERT, 166 Essex St., Boston, Mass. (1909)
- DOWE, EDGAR S., New Haven, Conn. (1911)
- DOWNES, FREDERICK A., 925 Chestnut St., Philadelphia, Pa. (1910)
- DOWNNEY, EZEKIEL HENRY, Gambier, Ohio. (1911)
- DOYLE, ALBERT, Avon, Mass. (1909)
- DREHER, H. J., Marshall & Isley Bank, Milwaukee, Wis. (1911)
- †DREXEL INSTITUTE LIBRARY, Philadelphia, Pa.
- *DROPPERS, GARRETT, Williamstown, Mass. (1902)
- DUBERSTEIN, SAMUEL C., 99 Nassau St., New York City. (1910)
- DU BOIS, W. E. BURGHARDT, Atlanta University, Atlanta, Ga. (1909)
- DU BRUL, ERNEST FERDINAND, Bleecker & Melrose Sts., Cincinnati, Ohio. (1895)
- DUFFIELD, MORSE STEWART, 416 Felt Bldg., Salt Lake City, Utah. (1911)
- DUMMER, ETHEL S. (Mrs. Wm. Francis), 679 Lincoln Parkway, Chicago, Ill. (1910)
- DUNBAR, C. E., JR., 1220 State St., New Orleans, La. (1911)
- DUNCAN, JOHN C., University of Illinois, Urbana, Ill. (1906)
- DUNTON, G. F., Franklin Wharf, Portland, Me. (1911)
- DURAND, EDWARD DANA, Bureau of the Census, Washington, D. C. (1898)
- DUTTON, CHARLES H., 10 Wellington Ave., Waltham, Mass. (1911)
- DYCHE, WILLIAM ANDREW, 1882 Sheridan Road, Evanston, Ill. (1909)
- EARP, EDWIN LEE, Drew Theological Seminary, Madison, N. J. (1909)
- EASTMAN, GEORGE, 350 East Ave., Rochester, N. Y. (1910)
- EASTMAN, SAMUEL C., Concord, N. H. (1910)
- EBERSOLE, JOHN FRANKLIN, 322 Fifteenth St., Milwaukee, Wis. (1910)
- ECKFELDT, C. A., 208 North Canal St., Chicago, Ill. (1911)
- *EDDY, SARAH JAMES, 4 Bell St., Providence, R. I. (1893)
- EDGERTON, CHARLES EUGENE, 2852 Ontario Road, Washington, D. C. (1896)
- †EDGEWORTH, FRANCIS Y., Oxford, Eng. (1893)
- EDMONDS, FRANKLIN SPENCER, Central High School, Philadelphia, Pa. (1894)
- EDWARDS, ALBA M., Bureau of the Census, Washington, D. C. (1908)
- EGLESTON, MELVILLE, 26 Cortlandt St., New York City. (1909)
- EHRHORN, OSCAR W., 15 William St., New York City. (1909)
- EHRICH, LOUIS R., 463 Fifth Ave., New York City. (1911)
- EHRLE, OSCAR F., 102 Fulton St., New York City. (1911)
- EICKHOFF, HENRY, 604 Mills Bldg., San Francisco, Calif. (1910)
- EIDLITZ, OTTO M., 489 Fifth Ave., New York City. (1907)
- ELIASON, ADOLPH OSCAR, Montevideo, Minn. (1902)
- †ELIZABETH FREE PUBLIC LIBRARY, Elizabeth, N. J.
- ELKINS, ABRAM L., 170 Broadway, New York City. (1909)
- ELLIOTT, CHARLES S., 1508 Topeka Ave., Topeka, Kan. (1911)
- ELLIS, EDMUND RICHARD STANLEY, 1 Old Broad St., E. C., London, Eng. (1911)
- ELLIS, ELLEN DEBORAH, Mount Holyoke College, South Hadley, Mass. (1906)
- ELLIS, GEORGE H., West Newton, Mass. (1909)
- ELLIS, GEORGE W., 149 Broadway, New York City. (1910)
- ELLWOOD, CHARLES A., Columbia, Mo. (1901)

- ELWELL, FAYETTE H., 1718 Wells St., Milwaukee, Wis. (1911)
 ELY, RICHARD THEODORE, Madison, Wis. (1886)
 ELY, ROBERT ERSKINE, 23 W. 44th St., New York City. (1903)
 EMBREE, *Mrs.* FRANCES B., 27 Ware St., Cambridge, Mass. (1909)
 *EMERICK, C. F., Northampton, Mass. (1907)
 EMERSON, ELLIOT S., 395 Broadway, Cambridge, Mass. (1909)
 EMERSON, HARRINGTON, 30 Church St., New York City. (1911)
 EMERSON, WILLIAM F., 450 Main St., Longmeadow, Mass. (1910)
 EMERY, HENRY CROSBY, New Haven, Conn. (1894)
 ENGLAND, *Mrs.* MINNIE THROOP, 517 E. 16th St., University Place, Nebr. (1906)
 ENGLE, HARRY P., Newton, Iowa. (1911)
 ENGLEHART, IRA P., North Yakima, Wash. (1911)
 ENGLISH, DONALD, Pullman, Wash. (1911)
 EPPLEY, MARION, 80 Broadway, New York City. (1911)
 ESBERG, A. I., 3410 Washington St., San Francisco, Calif. (1911)
 ESTABROOK, A. F., 15 State St., Boston, Mass. (1909)
 ESTES, WEBSTER C., 74 Warren St., New York City. (1911)
 EVANS, GEORGE W., Charlestown High School, Charlestown, Mass. (1909)
 EVANS, ROWLAND, 221 Federal Bldg., Indianapolis, Ind. (1911)
 EVARTS, FRANK B., 11211 Bellflower Road, Cleveland, Ohio. (1910)
 EVERS, CECIL C., 186 Montague St., Brooklyn, N. Y. (1904)
 EVERSZ, ERNEST, C/o Eversz & Co., Chicago, Ill. (1909)
 EWING, JOHN GILLESPIE, C/o Neal H. Ewing, Roselle, N. J. (1900)
 EYERLY, ELMER KENDALL, North Amherst, Mass. (1910)
 EYGES, LEON R., 18 Tremont St., Boston, Mass. (1909)
 FAIR, WILLIAM J., Murray Hill Hotel, Park Ave. & 41st St., New York City. (1911)
 FAIRCHILD, ARTHUR BABBITT, Crete, Nebr. (1901)
 *FAIRCHILD, CHARLES STEBBINS, Cazenovia, N. Y. (1896)
 FAIRCHILD, FRED ROGERS, New Haven, Conn. (1904)
 FAIRCHILD, H. P., Herrick Hall, New Haven, Conn. (1909)
 FAIRLIE, JOHN ARCHIBALD, 1004 S. Lincoln Ave., Urbana, Ill. (1901)
 FARNAM, HENRY WALCOTT, 43 Hillhouse Ave., New Haven, Conn. (1890)
 FARQUHAR, ARTHUR B., York, Pa. (1901)
 FARQUHAR, HENRY, Census Office, Washington, D. C. (1896)
 FARR, GEORGE W., Miles City, Mont. (1911)
 FAY, CHARLES R., 119 Montague St., Brooklyn, N. Y. (1911)
 FAY, CHARLES SPENCER, Metropolitan Bank Bldg., New Orleans, La. (1911)
 FAY, SIDNEY BRADSHAW, Hanover, N. H. (1904)
 FAYANT, FRANK H., Fort Plain, N. Y. (1909)
 FEISS, PAUL L., 113 St. Clair St., Cleveland, Ohio. (1904)
 FELL, FRANK J., JR., Broad St. Sta., Philadelphia, Pa. (1909)
 FELTER, WILLIAM L., 996 Sterling Pl., Brooklyn, N. Y. (1902)
 FENNER, CHARLES PAYNE, 708 Union St., New Orleans, La. (1911)
 FERBER, J. BERNARD, Federal Bldg., Boston, Mass. (1909)
 FERGUSON, HENRY, 123 Vernon St., Hartford, Conn. (1887)
 FERGUSON, J. MAXWELL, 627 West 113th St., New York City. (1909)
 *FERGUSON, WILLIAM C., Richmond, Ind. (1888)

- FERNLEY, JAMES W., 907 Betz Bldg., Philadelphia, Pa. (1911)
 FETTER, FRANK ALBERT, Cornell Heights, Ithaca, N. Y. (1894)
 FIELD, ARTHUR S., 14 Maple St., Hanover, N. H. (1906)
 FIELD, E. B., P. O. Drawer 1708, Denver, Colo. (1910)
 FIELD, JAMES ALFRED, University of Chicago, Chicago, Ill. (1904)
 FILENE, A. LINCOLN, 453 Washington St., Boston, Mass. (1909)
 FILENE, EDWARD A., 453 Washington St., Boston, Mass. (1901)
 FILLEBROWN, CHARLES BOWDOIN, 77 Summer St., Boston, Mass. (1896)
 FINLEY, JOHN HUSTON, 139th St. and Convent Ave., New York City. (1893)
 FISCHER, WILLIAM J., Natl. Bank of Commerce Bldg., St. Louis, Mo. (1910)
 *FISH, STUYVESANT, 52 Wall St., New York City. (1909)
 FISHER, FRANK L., 516 W. Vine Ave., Knoxville, Tenn. (1910)
 FISHER, GEORGE HARRISON, 308 Walnut St., Philadelphia, Pa. (1888)
 FISHER, IRVING, 460 Prospect St., New Haven, Conn. (1894)
 FISHER, WILLARD CLARK, Wesleyan University, Middletown, Conn. (1890)
 FITCH, JOHN A., 105 E. 22d St., New York City. (1909)
 FITZPATRICK, T. B., 104 Kingston St., Boston, Mass. (1909)
 FLATHER, FREDERICK A., Boott Mills, 79 Milk St., Boston, Mass. (1911)
 FLEISHER, ALEXANDER, 2045 Green St., Philadelphia, Pa. (1911)
 FLENIING, R. D., 1827 I St., N. W., Washington, D. C. (1911)
 FLETCHER, BERTRAM L., 654 St. Mark's Ave., Brooklyn, N. Y. (1909)
 FLETCHER, D. HOWARD, 1 Howland St., Marlboro, Mass. (1911)
 FLEXNER, BERNARD, Paul Jones Bldg., Louisville, Ky. (1911)
 FLICKINGER, J. R., State Normal School, Lock Haven, Pa. (1910)
 FLINT, CHARLES RANLETT, 4 E. 36th St., New York City. (1910)
 FLINT, ELLIOT, 54 Oriole St., Providence, R. I. (1911)
 FLOCKEN, IRA G., 204 S. Market St., Urbana, Ill. (1909)
 FLUX, ALFRED WILLIAM, Board of Trade, Gwydyr House, Whitehall, London, S. W., Eng. (1901)
 FOERSTER, ROBERT FRANZ, 71 Perkins Hall, Cambridge, Mass. (1909)
 FOLEY, DANIEL, Roxbury High School, Boston, Mass. (1910)
 FOLLMER, CHARLES J., 312 Riverside Drive, New York City. (1911)
 FOLWELL, WILLIAM WATTS, University of Minnesota, Minneapolis, Minn. (1886)
 *FOOTE, ALLEN RIPLEY, 18 Board of Trade Bldg., Columbus, Ohio. (1890)
 FORBES, J. B., People's Gas Bldg., Chicago, Ill. (1911)
 †FORBES LIBRARY, Northampton, Mass.
 FORD, JAMES, 35 Walker St., Cambridge, Mass. (1911)
 FORD, WORTHINGTON CHAUNCEY, Massachusetts Historical Society, Boston, Mass. (1887)
 FORDHAM, HERBERT L., Trinity Bldg., 111 Broadway, New York City. (1910)
 FORDYCE, SAMUEL W., Commonwealth Trust Bldg., St. Louis, Mo. (1910)
 FOREMAN, CLARENCE JAMES, 508 E. 4th St., Bloomington, Ind. (1909)
 FORREST, J. DORSEY, 30 Audobon Pl., Indianapolis, Ind. (1900)
 FORRESTER, JAMES GRANT, Bryn Mawr College, Bryn Mawr, Pa. (1909)
 FORSTER, WILLIAM, 59 Wall St., New York City. (1909)
 †FORT WAYNE PUBLIC LIBRARY, Fort Wayne, Ind.
 FOSS, HERBERT COLLAMORE, 120 Boylston St., Boston, Mass. (1909)
 FOSS, W. J., 21st and Market Sts., Philadelphia, Pa. (1911)

- *FOSTER, E. H., Butterworth Farm, Foster, Ohio. (1899)
 FOSTER, SOLOMON, 264 Clinton Ave., Newark, N. J. (1910)
 FOSTER, WILLIAM E., Providence Public Library, Providence, R. I. (1905)
 FOSTER, WILLIAM H., R. 1026, 30 Church St., New York City. (1910)
 FOWLER, RUFUS B., 3 Tuckerman St., Worcester, Mass. (1909)
 FOX, HENRY H., 929 Peace St., Pelham Manor, N. Y. (1911)
 FOX, HUGH F., 109 E. 15th St., New York City. (1910)
 FRADENBURGH, ADELBERT GRANT, Adelphi College, Brooklyn, N. Y. (1894)
 FRANCE, JOSEPH C., Continental Bldg., Baltimore, Md. (1911)
 FRANCE, JOSEPH I., 15 W. Mt. Vernon Place, Baltimore, Md. (1911)
 FRANKLAND, FREDERICK W., "Okataina", Foxton, New Zealand. (1911)
 FRANKLIN, FABIAN, C/o *New York Evening Post*, New York City. (1892)
 FRANKS, JAMES B., 125 School Lane, Germantown, Philadelphia, Pa. (1910)
 FRASER, WILBER J., Urbana, Ill. (1910)
 FREDRIKSEN, DITLEW M., 172 Washington St., Chicago, Ill. (1910)
 FREEHOFF, J. C., 557 W. 124th St., New York City. (1900)
 FREEMAN, HARRISON B., JR., 50 State St., Hartford, Conn. (1901)
 FREEMAN, H. J., 586 St. Peter St., St. Paul, Minn. (1910)
 FREER, HAMLINE H., Mt. Vernon, Iowa. (1893)
 FRENCH, HERBERT F., 166 Essex St., Boston, Mass. (1909)
 FRENCH, WILLIAM B., 89 State St., Boston, Mass. (1911)
 FRENNING, JOHN E., 42 Union St., Boston, Mass. (1909)
 FRIDAY, DAVID, 1203 Forest Ave., Ann Arbor, Mich. (1910)
 FRIEDENWALD, HERBERT, 356 Second Ave., New York City. (1891)
 FRIEDMAN, H. G., C/o Public Service Commission, Tribune Bldg., New York City. (1908)
 *FULLER, PAUL, 68 William St., New York City. (1887)
 FURBER, HENRY JEWETT, JR., 701 New York Life Bldg., Chicago, Ill. (1892)
 †GALESBURG PUBLIC LIBRARY, Galesburg, Ill.
 GALLIVER, GEORGE A., 819 Devon St., Arlington, N. J. (1909)
 GALLOWAY, LEE, New York University School of Commerce, Washington Square, E., New York City. (1908)
 GANNAWAY, JOHN W., Grinnell, Iowa. (1909)
 GARCIA, RAFAEL A., Clarines, Venezuela, S. A. (1909)
 GARDINER, ROBERT H., Gardiner, Me. (1909)
 GARDNER, HENRY BRAYTON, 54 Stimson Ave., Providence, R. I. (1886)
 GARFIELD, HARRY A., Williams College, Williamstown, Mass. (1898)
 GARRARD, JEPHTIAH, 405 Johnston Bldg., Cincinnati, Ohio. (1890)
 GARRETT, ROBERT, 506 Continental Trust Bldg., Baltimore, Md. (1904)
 GARRIGUES, FREDERIC H., 921 Chestnut St., Philadelphia, Pa. (1910)
 GARRISON, ELISHA ELY, North Haven, Conn. (1909)
 GARST, JULIUS, Worcester, Mass. (1909)
 GATES, STANLEY, 189 LaSalle St., Chicago, Ill. (1910)
 GAULT, FRANKLIN BENJAMIN, Vermilion, S. D. (1894)
 GAVIN, FRANK E., 1025 Lemcke Bldg., Indianapolis, Ind. (1902)
 GAY, EDWIN FRANCIS, 58 Highland St., Cambridge, Mass. (1904)
 GEIJSBEEK, JOHN B., 804 Equitable Bldg., Denver, Colo. (1911)
 GEISSINGER, JAMES ALLEN, 1017 West 34th St., Los Angeles, Calif. (1910)
 GEORGE, WILLIAM HENRY, Beaver Falls, Pa. (1909)

†GEORGIA, UNIVERSITY OF, Athens, Ga.

GEPHART, WILLIAM FRANKLIN, Ohio State University, Columbus, Ohio. (1905)

GERLING, HENRY JOSEPH, Teachers' College, Park and Teresa Aves., St. Louis, Mo. (1896)

GERSTENBERG, CHARLES W., 160 Broadway, New York City. (1909)

*GEST, WILLIAM PURVES, Merion Station, Pa. (1905)

GETTEMY, CHARLES F., Bureau of Statistics of Labor, Boston, Mass. (1909)

GHENT, W. J., 260 W. 54th St., New York City. (1903)

GIBBS, W. H., Columbia, S. C. (1910)

GIBSON, WILLIAM J., 32 Liberty St., New York City. (1910)

GIDDINGS, FRANKLIN HENRY, 150 W. 79th St., New York City. (1886)

†GIDE, CHARLES, C/o Faculté de Droit, Place de Panthéon, Paris, France. (1892)

GIESECKE, ALBERT ANTHONY, Universidad del Cuzco, Cuzco, Peru, S. A. (1907)

GIFFORD, W. S., 15 Dey St., New York City. (1909)

GILBERT, JAMES H., 387 E. 11th St., Eugene, Ore. (1909)

GILLIN, JOHN LEWIS, Iowa State University, Iowa City, Iowa. (1909)

GILMAN, FRED H., Fort Bliss, Texas. (1910)

GILMAN, STEPHEN W., 82 No. Hall, University of Wisconsin, Madison, Wis. (1911)

GILS, G. HENRY, 319 W. Ontario St., Chicago, Ill. (1911)

GILSON, N. S., Fond du Lac, Wis. (1900)

GINN, EDWIN, 29 Beacon St., Boston, Mass. (1910)

GINSBERG, BERNARD, 84 Adelaide St., Detroit, Mich. (1910)

GLADDEN, WASHINGTON, Columbus, Ohio. (1886)

GLASSON, WILLIAM HENRY, Durham, N. C. (1902)

GLEN, JAMES F., Tampa, Fla. (1911)

GLENN, JOHN MARK, 136 E. 19th St., New York City. (1894)

GLENN, MARY WILCOX, (MRS. JOHN M.) 136 E. 19th St., New York City. (1909)

GLICKSMAN, NATHAN, 485 Terrace Ave., Milwaukee, Wis. (1901)

GLOCKER, T. WESLEY, 9 Hamilton Place, Boston, Mass. (1907)

GOCHENOUR, E. T., Moorefield, W. Va. (1909)

GODKIN, LAWRENCE, 36 W. 10th St., New York City. (1910)

GOLDENWEISER, EMANUEL A., Census Office, Washington, D. C. (1911)

†GONZALES, D. CAMILO, SR., Director General de los Telégrafos Federales, Mexico, D. F., Mexico.

GOODCELL, HENRY, San Bernardino, Calif. (1910)

GOODELL, EDWIN BURPEE, Montclair, N. J. (1894)

GOODELL, ROSCOE H., 22 W. 19th St., New York City. (1911)

GOODHUE, EVERETT WALTON, Colgate University, Hamilton, N. Y. (1905)

GOODMAN, DAVID, Bessemond Ave., Far Rockaway, N. Y. (1909)

GOODNOW, FRANK JOHNSON, Columbia University, New York City. (1887)

†GOODWYN INSTITUTE, Memphis, Tenn.

GORE, THOMAS P., 1863 Mintwood Place, Washington, D. C. (1911)

GORTON, ADELOS, Maple Glen, Montgomery Co., Pa. (1910)

GOULD, ELGIN RALSTON LOVELL, 15 W. 38th St., New York City. (1886)

GOULDER, HARVEY D., 915 Rockefeller Bldg., Cleveland, Ohio. (1910)

GOVE, WILLIAM HENRY, 254 Lafayette St., Salem, Mass. (1891)

- GRAETZ, VICTOR, 1 Bartenkeingasse 2, Vienna, Austria. (1901)
- GRAFF, SOLOMON, 183 E. 93d St., New York City. (1911)
- GRAM, JESSE P., 34 Nassau St., New York City. (1911)
- GRANT, HENRY TYLER, P. O. Box 1432, Providence, R. I. (1909)
- GRASS, D. F., 170 Waverly St., Palo Alto, Calif. (1910)
- GRAY, A. N., 102 W. 57th St., New York City. (1911)
- GRAY, EDWARD, 19 Stratford Place, Newark, N. J. (1909)
- GRAY, JOHN CHIPMAN, 60 State St., Boston, Mass. (1890)
- GRAY, JOHN HENRY, University of Minnesota, Minneapolis, Minn. (1888)
- GRAY, L. C., 102 Spooner St., Madison, Wis. (1911)
- GRAY, R. S., 1921 Telegraph Ave., Oakland, Calif. (1909)
- GREEFF, BERNHARD, 106 Spring St., New York City. (1911)
- GREELEY, HAROLD DUDLEY, 2 Rector St., New York City. (1909)
- GREEN, CHARLES R., Library Massachusetts Agricultural College, Amherst, Mass. (1909)
- *GREEN, DAVID I., Hartford, Conn. (1890)
- GREEN, HERBERT, 1025 People's Gas Bldg., Chicago, Ill. (1910)
- GREENLINGER, LEO, 32 Waverly Place, New York City. (1909)
- GREENE, EVERETT ARNOLD, 224 Bailey St., Lawrence, Mass. (1911)
- GREENWOOD, BURT W., 193 May St., Worcester, Mass. (1909)
- GREGORY, ROGER, Elsing Green, Va. (1911)
- GREVE, CHARLES THEODORE, Maxwell Ave., Vernonville, Cincinnati, Ohio. (1911)
- *GREY, ALBERT HENRY GEORGE, Government House, Ottawa, Ont., Can. (1896)
- GREY, DAVID L., 1320 Third National Bank Bldg., St. Louis, Mo. (1910)
- GRIES, JOHN M., Bureau of Corporations, Washington, D. C. (1910)
- GRIFFIN, CHARLES A., 3 West St., Utica, N. Y. (1909)
- GRINFELD, ISAAC, Livingston Hall, Columbia University, New York City. (1909)
- GROAT, GEORGE GORHAM, Ohio Wesleyan University, Delaware, Ohio. (1903)
- GROTON, W. M., The Dean's House, Woodland Ave. and 50th St., Philadelphia, Pa. (1886)
- *GRILICK, JOHN THOMAS, E. Manoa Road, Honolulu, H. T. (1887)
- GUNN, JAMES NEWTON, 43 Wall St., New York City. (1910)
- GUNNELL, WILLIAM J., 40 Vermont St., Buffalo, N. Y. (1910)
- GUTSCHOW, E. F., Schandauerstr. 68, Dresden, A. 21, Germany. (1911)
- HADLEY, ARTHUR MARIS, Hanover, Ind. (1911)
- HADLEY, ARTHUR TWINING, New Haven, Conn. (1888)
- HAFF, DELBERT JAMES, Kansas City, Mo. (1911)
- HAGERTY, JAMES EDWARD, Ohio State University, Columbus, Ohio. (1902)
- HAGY, A. B., 718 North 5th St., Reading, Pa. (1911)
- HAIG, ROBERT M., University of Illinois, Urbana, Ill. (1911)
- HALE, GEORGE D., 1059 Lake Ave., Rochester, N. Y. (1910)
- HALL, EDWARD K., 101 Milk St., Boston, Mass. (1909)
- HALL, FRED S., Real Estate Trust Bldg., Philadelphia, Pa. (1909)
- HALLIGAN, HOWARD A., 463 West St., New York City. (1910)
- HALLOWELL, J. MOTT, West Medford, Mass. (1909)
- HALPERN, MORRIS, 27 W. 112th St., New York City. (1909)
- HAISEY, JAMES B., Roxborough, Philadelphia, Pa. (1910)

- HALSEY, JOHN JULIUS, Lake Forest, Ill. (1888)
 HAM, ARTHUR HAROLD, 105 E. 22d St., New York City. (1910)
 HAMILL, CHARLES H., 134 Monroe St., Chicago, Ill. (1910)
 HAMILTON, ALICE, Hull House, Chicago, Ill. (1911)
 HAMILTON, FOSTER, The Bank of Alabama, Ensley, Ala. (1910)
 HAMLIN, CHARLES SUMNER, 2 Raleigh St., Boston, Mass. (1900)
 HAMMAR, F. V. East St. Louis, Ill. (1911)
 HAMMARGREN, ERNEST L., 3637 13th St., N. W., Washington, D. C. (1908)
 HAMMER, THOMAS PHILIP, 417 Franklin Bank Bldg., Philadelphia, Pa. (1910)
 HAMMOND, JOHN HAYS, 71 Broadway, New York City. (1910)
 HAMMOND, JOHN HENRY, 40 Wall St., New York City. (1902)
 HAMMOND, MATTHEW BROWN, 1483 Michigan Ave., Columbus, Ohio. (1894)
 HANCOCK, G. D., Lexington, Va. (1908)
 HAND, LEARNED, U. S. Court House, New York City. (1910)
 †HANDELSCHOCHSCHULE, Munich, Bavaria.
 HANEY, LEWIS HENRY, University of Texas, Austin, Texas. (1906)
 HANGER, G. WALLACE W., U. S. Department of Labor, Washington, D. C. (1901)
 HANKINS, FRANK HAMILTON, Clark College, Worcester, Mass. (1907)
 HANKS, Mrs. C. STEDMAN, 53 State St., Boston, Mass. (1888)
 HANNA, HUGH HENRY, 1522 N. Penna. St., Indianapolis, Ind. (1904)
 HANSON, F. H., 1107 Broadway, Oakland, Calif. (1911)
 HANSON, J. HOWARD, 200 Fifth Ave., New York City. (1910)
 *HARDING, W. E., Bethany, N. Y. (1890)
 HARDMAN, LAMARTINE G., Commerce, Ga. (1910)
 HARNED, FRANKLIN M., 266 Lincoln Road, Brooklyn, N. Y. (1908)
 HARRIS, ALBERT H., 135 Central Park, W., New York City. (1910)
 HARRIS, HENRY J., 1736 G St., Washington, D. C. (1911)
 HARRIS, THOMAS L., 441 West Gorham St., Madison, Wis. (1911)
 HART, CHARLES H., 25 Broad St., New York City. (1909)
 HART, PATRICK HENRY, 1170 Broadway, New York City. (1910)
 HART, WILLIAM O., 134 Carondelet St., New Orleans, La. (1907)
 HARTSHORN, LEWIS E., Hanover, N. H. (1910)
 †HARVARD UNIVERSITY LIBRARY, Department of Social Ethics, Emerson Hall, Cambridge, Mass.
 †HARVARD UNIVERSITY LIBRARY, Gore Hall, Cambridge, Mass.
 HARVEY, ELBERT A., 8 Auburn Court, Brookline, Mass. (1911)
 HARVEY, WILLIAM S., 119 South 4th St., Philadelphia, Pa. (1910)
 HASSINGER, LUTHER C., Konnarock, Va. (1910)
 HASTINGS, WILLIAM GRANGER, University of Nebraska, Lincoln, Nebr. (1904)
 HATCH, LEONARD WILLIAMS, 140 S. Allen St., Albany, N. Y. (1901)
 HATFIELD, HENRY RAND, University of California, Berkeley, Calif. (1898)
 *HATHAWAY, FRANK RANDEL, R. F. D. No. 2, Hudson, N. Y. (1888)
 HATTON, WILLIAM H., New London, Wis. (1901)
 HAUGEN, NILS P., 752 Gorham St., Madison, Wis. (1909)
 HAVENS, WILLIAM W., 469 East 134th St., New York City. (1910)
 †HAVERILL PUBLIC LIBRARY, Haverhill, Mass.
 HAWLEY, FREDERICK BARNARD, 82 Wall St., New York City. (1888)
 HAYES, JOHN ROBERT, North Hall, University of Wisconsin, Madison, Wis. (1910)

- HAYNES, FRED E., 709 Tenth St., Sioux City, Iowa. (1908)
 HAYNES, GEORGE E., Fisk University, Nashville, Tenn. (1909)
 HAZARD, FREDERICK ROWLAND, P. O. Box 2, Syracuse, N. Y. (1902)
 HAZARD, ROWLAND GIBSON, Peacedale, R. I. (1901)
 †HAZEN, LUCIUS R., 198 Main St., Middletown, Conn.
 HEATH, DANIEL C., 46 Randolph Hall, Cambridge, Mass. (1911)
 †HEBREW SHELTER GUARDIAN SOCIETY, 150th St. and Broadway, New York City.
 HEDRICK, WILBUR OLIN, East Lansing, Mich. (1909)
 HEIGHIO, EDGAR MAURICE, Weiser, Idaho. (1910)
 HEIKE, CHARLES R., 256 Montgomery St., Jersey City, N. J. (1911)
 †HELENA PUBLIC LIBRARY, Helena, Mont.
 HELLER, LOUIS CHARLES, 236 Edwards St., New Haven, Conn. (1911)
 HEMMENS, HENRY J., 54 Wall St., New York City. (1909)
 HEMMEON, JOSEPH CLARENCE, McGill University, Montreal, Can. (1909)
 HENDERSON, CHARLES RICHMOND, 5736 Washington Ave., Hyde Park Station, Chicago, Ill. (1895)
 HENDERSON, HARRY BLOOM, Cheyenne, Wyo. (1901)
 HENDERSON, WALTER G., 3033 Queen St., Falls of Schuylkill, Philadelphia, Pa. (1910)
 HENDRICKS, GEORGE B., Logan, Utah. (1910)
 HERCZEG, IMRE DE JOSIKA, 28 W. 10th St., New York City. (1910)
 HERRICK, CHEESEMAN ABIAH, Girard College, Philadelphia, Pa. (1901)
 HERRING, DONALD G., 11 South West Brown, Princeton, N. J. (1910)
 HERRIOT, FRANK I., Des Moines, Iowa. (1896)
 HERSCHEL, A. H., The Dupont, Washington, D. C. (1911)
 HERSCHMAN, FRANK, 372 Atlantic Ave., Boston, Mass. (1911)
 HERZOG, PAUL M., 41 W. 68th St., New York City. (1909)
 HESS, R. H., University of Minnesota, Minneapolis, Minn. (1907)
 HESS, ROLA W., 501 N. Seventh St., St. Louis, Mo. (1911)
 HEWES, AMY, Mt. Holyoke College, South Hadley, Mass. (1905)
 HEYER, A. O., Sheboygan, Wis. (1910)
 HEYKE, JOHN ERICSON, 152 Temple St., New Haven, Conn. (1909)
 HIBBARD, B. H., Bureau of the Census, Washington, D. C. (1907)
 HICKERNELL, WARREN F., Bureau of the Census, Washington, D. C. (1911)
 HICKIE, C. H., 240 Balmoral St., Winnipeg, Man., Can. (1911)
 HICKS, FREDERICK CHARLES, University of Cincinnati, Cincinnati, Ohio. (1887)
 HIESTER, A. V., 320 Race Ave., Lancaster, Pa. (1900)
 HIGGS, JOSEPH, Box 153, Lafayette, Ind. (1910)
 HILDEBRAND, EDWARD, 2158 Seventh Ave., New York City. (1909)
 HILDER, MORITZ, 28 W. 85th St., New York City. (1911)
 HILL, DONALD MACKEY, 35 Congress St., Boston, Mass. (1909)
 HILL, FRED B., Northfield, Minn. (1909)
 HILL, JOSEPH ADNA, Census Office, Washington, D. C. (1887)
 HILL, ROBERT TUDOR, 124 E. 28th St., New York City. (1909)
 HILL, WM., University of Chicago, Chicago, Ill. (1908)
 HILL, WILLIAM H., 50 Congress St., Boston, Mass. (1909)
 HILLER, FRANCIS H., 85 Market St., Portland, Me. (1911)
 HILLHOUSE, JAMES, Sachem's Wood, New Haven, Conn. (1909)
 HILLS, ARTHUR STEDMAN, 2 Rector St., New York City. (1910)

- HINCKLEY, JOHN FRANKLIN, 5819 Cates Ave., St. Louis, Mo. (1910)
- HINDENLANG, HERMAN, 101 Tremont St., Boston, Mass. (1911)
- HINES, WALKER D., 52 William St., New York City. (1903)
- HIRSCH, DR. KARL, 52 Westendstrasse, Frankfort a. M., Germany. (1906)
- HITCHCOCK, FRANK HARRIS, Metropolitan Club, Washington, D. C. (1902)
- HOADLEY, HORACE G., Waterbury, Conn. (1910)
- HOAG, CLARENCE GILBERT, Haverford, Pa. (1910)
- HOAGLAND, H. E., Prairie City, Ill. (1910)
- HOAGLAND, JOSEPH C., 2 Central Ave., Ithaca, N. Y. (1911)
- HOBART, R. B., 24 Marlborough St., Boston, Mass. (1909)
- HOBSON, JOHN ATKINSON, Elmstead, Limspsfield, Surrey, Eng. (1890)
- HOFFMAN, FREDERICK L., Prudential Insurance Co., Newark, N. J. (1906)
- HOGGSON, WILLIAM J., 7 East 44th St., New York City. (1911)
- HOGLE, JAMES A., Scott Bldg., Salt Lake City, Utah. (1911)
- HOLCOMB, ALFRED E., 75 Dey St., New York City. (1910)
- HOLCOMB, GEORGE N., Amherst, Mass. (1909)
- HOLCOMBE, ARTHUR NORMAN, 7 Exeter Park, Cambridge, Mass. (1909)
- HOLDEN, ARTHUR J., Bennington, Vt. (1910)
- HOLDSWORTH, JOHN THOM, University of Pittsburg, Pittsburg, Pa. (1903)
- HOLLAND, ARTHUR, 62 Main St., Concord, Mass. (1904)
- HOLLANDER, JACOB H., Johns Hopkins University, Baltimore, Md. (1890)
- HOLLINGTON, R. W., 1910 Jefferson St., Toledo, Ohio. (1910)
- HOLLINS, HARRY B., JR., 74 Broadway, New York City. (1911)
- HOLLOWAY, HARRY D., 508 Land Title Bldg., Philadelphia, Pa. (1911)
- HOLMES, GEORGE K., Department of Agriculture, Washington, D. C. (1887)
- HOLT, ERASTUS EUGENE, 723 Congress St., Portland, Me. (1910)
- HOLT, HENRY, 34 W. 33d St., New York City. (1899)
- HOLTON, HENRY D., Brattleboro, Vt. (1910)
- HOOKER, THOMAS, New Haven, Conn. (1911)
- HOPKINS, ARCHIBALD, Court of Claims, Washington, D. C. (1910)
- HOPKINS, ARTHUR T., Boston Woven Hose & Rubber Co., Boston, Mass. (1911)
- HOPKINS, B. H., 1309 Central Bank Bldg., Memphis, Tenn. (1910)
- *HOPKINS, GEORGE B., 25 W. 48th St., New York City. (1909)
- HOPKINS, LOUIS J., Winnetka, Ill. (1911)
- HOPPER, CAROLA N., 11 E. 45th St., New York City. (1909)
- HORNBLOWER, HENRY, 60 Congress St., Boston, Mass. (1909)
- HORNE, PERLEY L., Kamehameha Schools, Honolulu, H. T. (1901)
- HOTCHKISS, WILLARD EUGENE, Evanston, Ill. (1902)
- HOURWICH, ISAAC A., 919 Massachusetts Ave., N. E., Washington, D. C. (1901)
- HOUSTON, DAVID F., Washington University, St. Louis, Mo. (1896)
- *HOUSTON, SAMUEL FREDERICK, Chestnut Hill, Philadelphia, Pa. (1888)
- HOWARD, EARL DEAN, Northwestern University, Evanston, Ill. (1905)
- HOWE, SAMUEL T., 1925 West St., Topeka, Kan. (1894)
- HOWES, FRANK H., 248 Park St., Newton, Mass. (1909)
- HOWLETT, HERBERT C., Genesee Valley Trust Co., Rochester, N. Y. (1911)
- HOXIE, ROBERT F., 6021 Woodlawn Ave., Chicago, Ill. (1900)
- HOYT, ALLEN G., 407 Central Park West, New York City. (1910)
- HUBBARD, ROSS W., 504 N. 5th St., Marshalltown, Iowa. (1909)

- HUBBARD, WILLIAM PALLISTER, 1421 Chapline St., Wheeling, W. Va. (1901)
 HUBER, BERTHOLD, Taunton, Mass. (1911)
 HUDSTON, JOHN W., C/o Denver National Bank, Denver, Colo. (1911)
 HUGHES, CHARLES EVANS, 2401 Massachusetts Ave., Washington, D. C. (1904)
 HULL, CHARLES HENRY, Ithaca, N. Y. (1892)
 HUMMER, GEORGE P., Holland, Mich. (1910)
 HUN, MARCUS T., 25 N. Pearl St., Albany, N. Y. (1908)
 HUNT, ROCKWELL D., University of Southern California, Los Angeles, Calif. (1908)
 HUNT, WILLIAM C., Census Office, Washington, D. C. (1898)
 HUNTER, ARTHUR, 346 Broadway, New York City. (1904)
 HUNTINGTON, CHARLES C., Ohio State University, Columbus, Ohio. (1905)
 HUNTINGTON, FRANCIS C., 54 William St., New York City. (1904)
 †HURD, GEORGE E., Glasgow, Mont.
 HURD, RICHARD M., 59 Liberty St., New York City. (1897)
 HURLEY, W., 1922 Rose St., Regina, Sask., Canada. (1909)
 HUSE, CHARLES PHILLIPS, 149 Hancock St., Cambridge, Mass. (1908)
 HUSTON, FRANK M., 4838 Kenmore Ave., Chicago, Ill. (1911)
 HUTCHINS, F. LINCOLN, Box 322 Port Chester, N. Y. (1908)
 HUTCHINSON, EMILIE JOSEPHINE, Wellesley College, Wellesley, Mass. (1909)
 HUTCHINSON, LINCOLN, Faculty Club, Berkeley, Calif. (1903)
 HUTCHINSON, WINFIELD S., 125 Milk St., Boston, Mass. (1909)
 HUTTIG, C. H., St. Louis, Mo. (1910)
 HUTZLER, DAVID, 1801 Eutaw Place, Baltimore, Md. (1909)
 HYER, SAMUEL C., Tribune Bldg., 154 Nassau St., New York City. (1911)
 HYMAN, LOUISE, 49 W. 56th St., New York City. (1909)
 †IDAHO, UNIVERSITY OF, Moscow, Idaho.
 *ILES, GEORGE, Public Library, Ottawa, Canada. (1888)
 †ILLINOIS, UNIVERSITY OF, Champaign, Ill.
 ISLEY, JAMES K., C/o Marshall & Isley Bank, Milwaukee, Wis. (1910)
 †INDIANA STATE LIBRARY, Indianapolis, Ind.
 †INDIANA UNIVERSITY LIBRARY, Bloomington, Ind.
 †INDIANAPOLIS PUBLIC LIBRARY, Indianapolis, Ind.
 INGERSOLL, WILLIAM H., 315 Fourth Ave., New York City. (1911)
 INSULL, SAMUEL, 139 Adams St., Chicago, Ill. (1909)
 †IOWA STATE COLLEGE LIBRARY, Ames, Iowa.
 †IOWA STATE LIBRARY, Des Moines, Iowa.
 †IOWA STATE UNIVERSITY LIBRARY, Iowa City, Iowa.
 †IRON, V. K., 417 Machecha Bldg., New Orleans, La. (1911)
 *IRWIN, DUDLEY M., 71 Board of Trade, Buffalo, N. Y. (1890)
 ISRAEL, HENRY, 124 E. 28th St., New York City. (1910)
 JACKMAN, WILLIAM T., 99 Buell St., Burlington, Vt. (1909)
 JACKSON, DUGALD C., Massachusetts Institute of Technology, Boston, Mass. (1909)
 JACOBSON, MAURICE, 1335 F St., Washington, D. C. (1894)
 JACOBSTEIN, MEYER, State University of North Dakota, Grand Forks, N. D. (1909)
 *JAMES, EDMUND JANES, University of Illinois, Urbana, Ill. (1886)
 JANES, GEORGE M., 314 Augusta Ave., Baltimore, Md. (1909)

- JANSEN, F. BROMLEY, 405 Clunie Bldg., San Francisco, Calif. (1911)
- *JAYNE, HENRY LABARRE, 503 Chestnut St., Philadelphia, Pa. (1887)
- JEFFREY, JOSEPH ANDREW, 581 E. Town St., Columbus, Ohio. (1901)
- JEIDELS, OTTO, 32 Behrenstr., Berlin, Germany. (1911)
- JENKS, JEREMIAH WHIPPLE, 2 South Ave., Ithaca, N. Y. (1886)
- JENNINGS, CHARLES ELLIS, South Norwalk, Conn. (1911)
- JENNISON, A. C., Crawfordsville, Ind. (1909)
- JENSEN, JENS, 815 Steinway Hall, Chicago, Ill. (1910)
- JEREMIAH, J., 117 W. 58th St., New York City. (1911)
- †JERSEY CITY FREE PUBLIC LIBRARY, Jersey City, N. J.
- JESTER, SIMEON VANTRUMP, Moorestown, N. J. (1909)
- †JEVONS, H. STANLEY, "Woodhill," Rhiwbina, Nr. Cardiff, Wales. (1911)
- JOHANNSEN, N., Rosebank, N. Y. (1905)
- †JOHN CRERAR LIBRARY, Chicago, Ill.
- JOHNSON, ALBERT M., 159 La Salle St., Chicago, Ill. (1911)
- JOHNSON, ALVIN SAUNDERS, University of Chicago, Chicago, Ill. (1901)
- JOHNSON, BOLLING ARTHUR, 218 E. 49th St., Chicago, Ill. (1909)
- JOHNSON, EDGAR H., Oxford, Ga. (1910)
- JOHNSON, ELEANOR HOPE, 37 Madison Ave., New York City. (1910)
- JOHNSON, EMORY RICHARD, University of Pennsylvania, Philadelphia, Pa. (1893)
- JOHNSON, FRANKLIN LEE, C/o Mercantile National Bank, St. Louis, Mo. (1909)
- JOHNSON, JOSEPH FRENCH, 32 Waverly Place, New York City. (1896)
- JOHNSON, OSCAR 38 Portland Place, St. Louis, Mo. (1911)
- JOHNSON, WILLIAM C., 176 Federal St., Boston, Mass. (1907)
- JOHNSON, WILLIAM EUGENE, Laurel, Md. (1904)
- JOHNSTON, ALLEN W., 500 State St., Schenectady, N. Y. (1910)
- JOHNSTON, FREDERICK WILLIAM, 80 Richmond St., E., Toronto, Canada. (1911)
- JOHNSTON, RICHARD H., Library, Bureau of Railway Economics, Washington, D. C. (1910)
- JOLINE, ADRIAN HOFFMAN, 54 Wall St., New York City. (1909)
- JONES, BRECKENRIDGE, 45 Portland Place, St. Louis, Mo. (1909)
- JONES, DWIGHT A., 34 W. 51st St., New York City. (1910)
- JONES, EDWARD D., 625 Oxford Road, Ann Arbor, Mich. (1900)
- JONES, ELIOT, 15 Bellevue St., Medford Hillside, Mass. (1909)
- JONES, EMMETT M., Columbia University, New York City. (1910)
- JONES, EVERETT S., The Allen School, West Newton, Mass. (1909)
- JONES, HARRY L., 70 Gray Cliff Road, Newton Centre, Mass. (1911)
- JONES, HOWEL, Topeka, Kan. (1909)
- JUDSON, FREDERICK NEWTON, 500 Rialto Bldg., St. Louis, Mo. (1900)
- JUSTIN, M. E., Keokuk, Ia. (1911)
- †KANSAS CITY PUBLIC LIBRARY, Kansas City, Mo.
- †KANSAS STATE LIBRARY, Topeka, Kan.
- †KANSAS STATE NORMAL SCHOOL, Emporia, Kan.
- †KANSAS, UNIVERSITY OF, Library, Lawrence, Kan.
- KEHEW Mrs. MARY MORTON, 29a Chestnut St., Boston, Mass. (1911)
- KEITH, HORACE A., 1090 Main St., Brockton, Mass. (1909)
- KEITH, JOHN MEIGS, San José, Costa Rica, Central America. (1896)
- KELLER, E. E., Penobscot Bldg., Detroit, Mich. (1911)

- KELLOGG, HENRY N., 906 Tribune Bldg., Chicago, Ill. (1911)
 KELLOGG, JOHN H., Battle Creek Sanitarium, Battle Creek, Mich. (1911)
 KELLOGG, PAUL U., 105 E. 22d St., New York City. (1909)
 KELLY, JOHN F., 284 W. Housatonic St., Pittsfield, Mass. (1887)
 KELSEY, CARL, Logan Hall, University of Pennsylvania, Philadelphia, Pa. (1909)
 *KELSEY, FRANCIS WILLEY, 826 Tappan St., Ann Arbor, Mich. (1887)
 KEMMERER, EDWIN W., Goldwin Smith Hall, Ithaca, N. Y. (1903)
 KEMMERER, R. C., 84 Broadway, Brooklyn, N. Y. (1908)
 KENDALL, GEORGE F., Cambridge, Mass. (1911)
 KENDALL, G. J., 4441 W. Pine St., St. Louis, Mo. (1910)
 KENGOTT, GEORGE FREDERICK, 296 Liberty St., Lowell, Mass. (1910)
 KENNAN, KOSSUTH KENT, 935 Cambridge Ave., Milwaukee, Wis. (1900)
 KENNEDY, FRANK LOWELL, 43 Appleton St., Cambridge, Mass. (1909)
 KENNEDY, JAMES B., 40 Union Ave., Schenectady, N. Y. (1906)
 KENNEDY, PHILIP B., 4 Ware Hall, Cambridge, Mass. (1909)
 KEOUGH, Mrs. W. C. H., C/o The N. K. Fairbank Co., Chicago, Ill. (1911)
 KEPPLER, THEODORE L., American Sugar Refining Co., Granite St., Boston, Mass. (1909)
 KERN, CHARLES EVERETT, 1328 Harvard St., Washington, D. C. (1911)
 KESPOHL, JULIUS, Quincy, Ill. (1911)
 KEVENEY, CHARLES, 50 Congress St., Boston, Mass. (1909)
 *KEYNES, JOHN NEVILLE, 6 Harvey Road, Cambridge, Eng. (1888)
 KEYSER, ROBERT BRENT, 5 Hopkins Place, Baltimore, Md. (1903)
 KEYSER, W. S., Pensacola, Fla. (1911)
 KIDDER, CAMILLUS G., 27 William St., New York City. (1887)
 KILBOURNE, JAMES, 604 E. Town St., Columbus, Ohio. (1904)
 KILBURN, FLORENCE M., Richmond Hill, L. I., N. Y. (1910)
 KIMBALL, DAVID P., P. O. Box 2133, Boston, Mass. (1909)
 KIME, VIRGIL M., American Central Life Ins. Co., Indianapolis, Ind. (1908)
 KING, LYNDON P., 2400 Stevens Ave., Minneapolis, Minn. (1910)
 KING, STANLEY, 354 Congress St., Boston, Mass. (1909)
 KING, WILLFORD I., 218 N. Mills St., Madison, Wis. (1911)
 KINGSBURY, SUSAN M., 110 Hancock St., Cambridge, Mass. (1910)
 KINGWILL, J. H., 1634 Broadway, Denver, Colo. (1909)
 KINLEY, DAVID, Champaign, Ill. (1890)
 *KINOSITA, YETARO, 38 Minamicho, Takanawa, Shiba-Ku, Tokyo, Japan. (1904)
 *KINSEY, OLIVER P., Valparaiso, Ind. (1911)
 KINSMAN, DELOS O., State Normal School, Whitewater, Wis. (1900)
 KIRK, WILLIAM, Brown University, Providence, R. I. (1903)
 KIRKBRIDE, FRANKLIN B., 37 Madison Ave., New York City. (1911)
 KIRSTEIN, LOUIS E., 315 Washington St., Boston, Mass. (1909)
 KLAR, A. JULIAN, 130 Montague St., Brooklyn, N. Y. (1911)
 KLEENE, GUSTAV A., Trinity College, Hartford, Conn. (1898)
 KLEIN, JOSEPH J., 24 W. 113th St., New York City. (1909)
 KLEIN, JULIUS, 32 College House, Cambridge, Mass. (1911)
 KNAPP, MARTIN AUGUSTINE, Interstate Commerce Commission, Washington, D. C. (1901)
 KNOPF, ALFRED A., Lawrence, L. I., N. Y. (1910)

- KNOWLES, MORRIS, 2548 Oliver Bldg., Pittsburg, Pa. (1911)
- KOHLER, MAX J., 30 Broad St., New York City. (1902)
- †KOIZUMI, S., C/o Koizumi & Co., Nade near Kobe, Japan.
- KOREN, JOHN, 25 Pemberton Square, Boston, Mass. (1909)
- KOTANY, LUDWIG, 307 N. 4th St., St. Louis, Mo. (1909)
- KRAUSE, HOLGER E., The Prudential Insurance Co., Newark, N. J. (1909)
- KRUTSCHNITT, J., Room 610, 135 Adams St., Chicago, Ill. (1910)
- KUCZYNSKI, ROBERT K., 47 Sponholzstrasse, Schoensberg, Berlin, Germany. (1900)
- KUNHARDT, W. B., 120 W. 57th St., New York City. (1911)
- KURSHEEDT, MANUEL AUGUSTUS, 302 Broadway, New York City. (1890)
- KUTSCHER, F. E., Syms School, 49 E. 61st St., New York City. (1909)
- KUTZLEB, WALTER, 840 West End Ave., New York City. (1908)
- LAGERQUIST, WALTER E., 325 Dryden Road, Ithaca, N. Y. (1910)
- LAHEE, J. S., Burlington, Iowa. (1910)
- †LAL, MANOHAR, PROF., Barrackpore, Calcutta, India.
- LAMADRID, LUCAS, JR., 107 Ninth St., Havana, Cuba. (1911)
- LAMBERT, JOHN EDWARD, Leominster, Mass. (1910)
- LANDRITH, IRA, 1800 E. Belmont Circle, Nashville, Tenn. (1910)
- LASKER, MORRIS, Galveston, Texas. (1911)
- LATTIMER, GARDNER, 391 W. Spring St., Columbus, Ohio. (1909)
- LAUCK, W. JETT, 61 Maltby Bldg., Washington, D. C. (1909)
- LAUGHLIN, J. LAURENCE, 5747 Lexington Ave., Hyde Park Station, Chicago, Ill. (1904)
- LAUMAN, GEORGE NIEMAN, Cornell University, Ithaca, N. Y. (1909)
- LAUTERBACH, EDWARD, 22 William St., New York City. (1900)
- LAVERY, JAMES F., 184 Eldridge St., New York City. (1909)
- LAWFORD, JASPER M., 718 N. Howard St., Baltimore, Md. (1911)
- LAWRENCE, ARTHUR W., 348 Congress St., Boston, Mass. (1909)
- †LAWRENCE COLLEGE, Appleton, Wis.
- LAWRENCE, SAMUEL C., 8 Rural Ave., Medford, Mass. (1909)
- LAWSON, VICTOR F., 123 Fifth Ave., Chicago, Ill. (1910)
- LEACH, FRANK A., 541 Hobart St., Oakland, Calif. (1909)
- LEE, IVY LEDBETTER, C/o Harris, Winthrop & Co., 25 Pine St., New York City. (1904)
- LEE, JOSEPH E., Jacksonville, Fla. (1911)
- *LEESON, J. R., P. O. Box 2221, Boston, Mass. (1890)
- LEFAVOUR, HENRY, 3 Brimmer St., Boston, Mass. (1911)
- LEIGHTON, GEORGE B., Monadnock, N. H. (1911)
- LEISTER, B. P., 920 S. Market St., Canton, Ohio. (1911)
- LELAND, HENRY M., 1808 Ford Bldg., Detroit, Mich. (1911)
- †LELAND STANFORD JUNIOR UNIVERSITY LIBRARY, Palo Alto, Calif.
- LEMAN, J. HOWARD, 35 Congress St., Boston, Mass. (1909)
- LEMMON, G. N., 511 W. Main St., Jackson, Mich. (1911)
- LEONARD, A. W., Minneapolis General Electric Co., Minneapolis, Minn. (1911)
- LEONARD, FREDERICK M., 4243 Walnut St., Philadelphia, Pa. (1910)
- LE ROSSIGNOL, JAMES EDWARD, University of Denver, University Park, Colo. (1896)
- †LEROY-BEAULIEU, PAUL, Collège de France, Paris, France. (1887)

- LESH, JOHN A., 406 South 11th St., Indiana, Pa. (1911)
- LESLIE, S. J., 45 Henry Ave., Newburgh, N. Y. (1911)
- ‡LAVASSEUR, PIERRE-EMILE, 26 Rue Monsieur-le-Prince, Paris, France. (1892)
- LEVERETT, GEORGE V., 66 Beacon St., Boston, Mass. (1911)
- LEVERONI, FRANK, 815 Tremont Bldg., Boston, Mass. (1911)
- LEVINE, LOUIS, Columbia University, School of Pol. Sci., New York City. (1909)
- LEVY, RAPHAEL, Georges, 3 Rue de Noisiel XVIe, Paris, France. (1893)
- LEWINSKI-CORWIN, EDWARD H., Columbia University, New York City. (1909)
- LEWIS, BURDETTE G., Public Service Commission, New York City. (1905)
- LIBRY, CHARLES F., 57 Exchange St., Portland, Me. (1909)
- LIEB, J. W., JR., 55 Duane St., New York City. (1911)
- LIEBMANN, CHARLES J., 36 Forrest St., Brooklyn, N. Y. (1911)
- LINCOLN, JONATHAN THAYER, Box 516, Fall River, Mass. (1909)
- LINDBERG, A. F., 731 Real Estate Trust Bldg., Philadelphia, Pa. (1911)
- LINDLEY, HARLOW, Earlham College, Richmond, Ind. (1909)
- LINDSAY, SAMUEL McCUNE, 105 E. 22d St., New York City. (1894)
- LIPMAN, F. L., C/o Wells Fargo Nevada National Bank, San Francisco, Calif. (1894)
- LIPPINCOTT, HAROLD E., Hall of Records, New York City. (1898)
- LIPPINCOTT, I., Smith Academy, St. Louis, Mo. (1910)
- LITMAN, SIMON, University of Illinois, Champaign, Ill. (1909)
- LLOYD, GODFREY I. H., University of Toronto, Toronto, Can. (1909)
- LLOYD, O. G., 15 E. Gorham St., Madison, Wis. (1911)
- LOCKE, GEORGE H., The Public Library, Toronto, Can. (1911)
- LOCKHART, OLIVER CARY, Ohio State University, Columbus, Ohio. (1904)
- LOEB, BENJAMIN W., Hotel Flanders, 135 W. 47th St., New York City. (1910)
- LOEB, ISIDOR, Columbia, Mo. (1892)
- ‡LOESCHER & Co., 307 Corso Umberto I, Rome, Italy.
- LOEWY, BENNO, 206 Broadway, New York City. (1890)
- LOGAN, JAMES, 222 Salisbury St., Worcester, Mass. (1900)
- LOMB, HENRY C., 281 Barrington St., Rochester, N. Y. (1911)
- LOMBARD, J. P., 807 Pierce Bldg., St. Louis, Mo. (1911)
- LOMBARDI, C., Dallas, Texas. (1911)
- LONG, THURMAN B., 201 S. Tyron St., Charlotte, N. C. (1909)
- LONGLEY, EDMUND W., 125 Milk St., Boston, Mass. (1909)
- LOONEY, WILLIAM HENRY, Union Mutual Bldg., Portland, Me. (1893)
- LOOS, ISAAC ALTHAUS, Iowa City, Iowa. (1890)
- LORENZ, MAX OTTO, 1120 Girard St., Washington, D. C. (1904)
- LORING, AUGUSTUS P., 40 State St., Boston, Mass. (1909)
- LORING, HARRISON, JR., 43 India St., Boston, Mass. (1910)
- LORING, LINDSLEY, Box 160, Boston, Mass. (1911)
- ‡LOS ANGELES PUBLIC LIBRARY, Los Angeles, Calif.
- *LOUCHHEIM, SAMUEL K., West End Trust Bldg., Cor. Broad St. and S. Penn Square, Philadelphia, Pa. (1896)
- LOUGH, W. H., JR., 13 Astor Place, New York City. (1907)
- ‡LOUISVILLE FREE PUBLIC LIBRARY, Louisville, Ky.
- LOVEJOY, ERNEST WILLIAM, 54 William St., New York City. (1910)
- LOVEJOY, OWEN R., 105 E. 22d St., New York City. (1910)

- LOVETT, JAMES L., 151 Congress St., Portland, Me. (1909)
- *LOW, SETH, 30 E. 64th St., New York City. (1887)
- LOWBER, JAMES WILLIAM, 113 East 18th St., Austin, Texas. (1911)
- LOWDEN, FRANK O., Oregon, Ill. (1901)
- LOWENTHAL, ESTHER, Brooks Hall, Columbia University, New York City. (1909)
- LOWNHaupt, FREDERICK, Ossining, N. Y. (1909)
- LOWRIE, JOHN MARSHALL, Hartley Hall, Columbia University, New York City. (1909)
- LOWRY, JOHN C., 126 S. 19th St., Philadelphia, Pa. (1889)
- LOWRY, ROBERT J., Lowry National Bank, Atlanta, Ga. (1909)
- LUBIN, LOUIS, 120 Broadway, New York City. (1910)
- LUCE, ROBERT, 140 Highland Ave., Somerville, Mass. (1910)
- LUDLAM, CHARLES S., 30 Broad St., New York City. (1904)
- LUM, CHARLES M., Prudential Bldg., Newark, N. J. (1910)
- LUMMIS, WILLIAM, 320 W. 107th St., New York City. (1909)
- LUPTON, Mrs FRANK M., 839 St. Mark's Ave., Brooklyn, N. Y. (1911)
- †LUTOSLAWSKI, JOSEPH, Drozdow, Gour. Lomza, Russia-Poland.
- LUTZ, CHARLES A., C/o Interstate Commerce Commission, Washington, D. C. (1911)
- LUTZ, HARLEY L., 213 W. Lorain St., Oberlin, Ohio. (1909)
- LYBRAND, WILLIAM M., 55 Liberty St., New York City. (1910)
- LYMAN, ARTHUR THEODORE, P. O. Box 1717, Boston, Mass. (1888)
- LYMAN, HERBERT, 26 Marlborough St., Boston, Mass. (1909)
- LYNN, JOHN R., 925 Chestnut St., Philadelphia, Pa. (1909)
- LYNNE, W. SAREL, Union Bank Bldg., Pittsburg, Pa. (1910)
- LYON, HARRY RICHARD, Lincoln House Association, 80 Emerald St., Boston, Mass. (1909)
- †MACALASTER COLLEGE LIBRARY, St. Paul, Minn.
- MCCABE, DAVID ALOYSIUS, 25 Patton Hall, Princeton, N. J. (1909)
- MACCLEAN, E. A. 195 Broadway, New York City. (1910)
- MACCOLL, Miss C. I., Christodora House, 147 Ave. B, New York City. (1910)
- MCCONNELL, FRANCIS J., Greencastle, Ind. (1909)
- MCCORMICK, ALEXANDER A., 5541 Lexington Ave., Chicago, Ill. (1900)
- MCCORMICK, HAROLD F., 215 Dearborn St., Chicago, Ill. (1901)
- MCCREA, ROSWELL CHENEY, Boonton, N. J. (1899)
- MCCUTCHEON, GEO., University of South Carolina, Columbia, S. C. (1910)
- MCDONALD, JESSE, Third Natl. Bank Bldg., St. Louis, Mo. (1911)
- *MACDUFFIE, JOHN, 182 Central St., Springfield, Mass. (1893)
- McELWAIN, J. FRANKLIN, 39 Chestnut St., Boston, Mass. (1909)
- †McENERNEY, GARRET W., 1277 Flood Bldg., San Francisco, Calif.
- MACFARLANE, CHARLES WILLIAM, 52d and Market Sts., Philadelphia, Pa. (1894)
- MACFARLANE, JOHN J., Philadelphia Museum, 34a Vintage Ave., Philadelphia, Pa. (1888)
- MACGIBBON, DUNCAN ALEXANDER, Brandon College, Brandon, Man., Can. (1911)
- MACGILL, CAROLINE ELIZABETH, 606 North Francis St., Madison, Wis. (1907)
- McGOVERN, WILLIAM P., Cedarburg, Wis. (1909)

- MACGREGOR, DAVID H., The University, Leeds, Eng. (1906)
- McKEE, H. S., Monrovia, Calif. (1911)
- McKENNA, JAMES A., 55 John St., New York City. (1910)
- McKENNA, MARTIN, 362 E. Utica St., Buffalo, N. Y. (1910)
- McKENZIE, FAYETTE A., Ohio State University, Columbus, Ohio. (1908)
- McKIBBEN, JAMES A., 42 Mellen St., Dorchester Centre P. O., Boston, Mass. (1909)
- McKINLOCK, GEORGE A., 320 S. Fifth Ave., Chicago, Ill. (1911)
- McKINNEY, WALTER D., Board of Trade Bldg., Columbus, Ohio. (1909)
- McLAREN, W. W., 2 Nichome, Mita, Tokyo, Japan. (1911)
- McLEAN, FRANCIS HERBERT, Box 152, South Jacksonville, Fla. (1898)
- MACLEAN, JAMES ALEXANDER, Moscow, Idaho. (1894)
- McLEAN, SIMON JAMES, R. R. Commission, Ottawa, Can. (1910)
- McLOUGHLIN, WILLIAM G., 558 Jersey Ave., Jersey City, N. J. (1909)
- MACMICHAEL, R. H., C/o Mellon Natl. Bank, Pittsburg, Pa. (1911)
- McMYNN, ROBERT N., 498 Terrace Ave., Milwaukee, Wis. (1910)
- McNAMEE, THOMAS, Wabash, Ind. (1911)
- MACOMBER, A. E., Nicholas Bldg., Toledo, Ohio. (1886)
- McPHERSON, LOGAN GRANT, 1329 Pennsylvania Ave., Washington, D. C. (1899)
- McSWEENEY, EDWARD F., Salem End Road, Framingham, Mass. (1911)
- MACVEAGH, FRANKLIN, The Treasury Department, Washington, D. C. (1900)
- *MACVEAGH, WAYNE, Brookfield Farm, Bryn Mawr, Pa. (1887)
- McVEY, FRANK LEROND, University of North Dakota, N. D. (1895)
- MACY, V. EVERIT, 68 Broad St., New York City. (1899)
- MADDOCK, WILLIAM HERBERT, 214 Monroe St., Chicago, Ill. (1910)
- MADDOX, F. A., C/o The Fairbanks Co., New Orleans, La. (1911)
- MAGEE, JAMES DYSART, Western Reserve Univ., Cleveland, Ohio. (1911)
- MAGRANE, P. H., 477 Washington St., Boston, Mass. (1909)
- MAGRUDER, J. W., 2528 N. Calvert St., Baltimore, Md. (1910)
- MAHIN, JOHN LEE, 125 Monroe St., Chicago, Ill. (1909)
- MAHON, GEORGE, Lynchburg, Va. (1910)
- MAIER, CHAS. E., 96 Market St., Newark, N. J. (1911)
- MAIN, FRANK WILBUR, Farmers' Bank Bldg., Pittsburg, Pa. (1910)
- †MAINE, UNIVERSITY OF, Library, Orono, Me.
- MALTBIE, MILO ROY, 593 Riverside Drive, New York City. (1898)
- MANAHAN, EDWARD W., 155 Tremont St., Boston, Mass. (1909)
- MANAVATI, M. B., C/o Thos. Cook & Son, Philadelphia, Pa. (1910)
- MANGAM, W. D., Butte, Mont. (1910)
- MANGOLD, GEORGE BENJAMIN, 4002 Lexington Ave., St. Louis, Mo. (1910)
- MANLY, BASIL MAXWELL, Bureau of Labor, Washington, D. C. (1910)
- MANN, CHARLES F., East Bridgewater, Mass. (1911)
- *MARBURG, THEODORE, 14 W. Mt. Vernon Place, Baltimore, Md. (1890)
- MARK, CLAYTON, Lake Forest, Ill. (1911)
- MARKHAM, GEORGE DICKSON, 4961 Berlin Ave., St. Louis, Mo. (1910)
- MARKS, MARCUS M., 687 Broadway, New York City. (1904)
- MARKS, MARTIN A., 1886 E. 93d St., Cleveland, Ohio. (1901)
- MAROT, MARY LOUISE, 513 W. First St., Dayton, Ohio. (1909)
- MARQUIS, J. CLYDE, C/o *Country Gentleman*, Philadelphia, Pa. (1911)
- MARR, C. J., 206 La Salle St., Chicago, Ill. (1910)

- ‡MARSHALL, ALFRED, Cambridge, Eng. (1887)
 MARSHALL, ANDREW, 38 Rockview St., Jamaica Plain, Mass. (1909)
 MARSHALL, E. P., 2317 Grandview Ave., Cincinnati, Ohio. (1911)
 MARSHALL LEON CARROLL, University of Chicago, Chicago, Ill. (1904)
 MARSTON, EDWIN S., 22 William St., New York City. (1911)
 MARTIN, EARLE E., 32 Northfield Ave., Cleveland, Ohio. (1911)
 MARTIN, FREDERICK ROY., *Providence Journal*, Providence, R. I. (1910)
 MARTIN, JOHN, Grymes Hill, S. I., N. Y. (1905)
 MARTIN, OSCAR ROSS, 1004 W. Oregon St., Urbana, Ill. (1910)
 MARTIN, R. W., 25 Nassau St., New York City. (1905)
 MARTIN, SELDEN OSGOOD, 16 University Hall, Cambridge, Mass. (1904)
 MARTIN, WILLIAM MCCHESNEY, Mississippi Valley Trust Co., St. Louis, Mo. (1910)
 MARVIN, CORNELIA, Oregon Library Commission, State House, Salem, Ore. (1908)
 MARVIN, SYLVESTER S., Bryn Mawr, Pa. (1911)
 MARWICK, JAMES, 79 Wall St., New York City. (1910)
 MASON, AUGUSTUS LYNCH, 1006 N. Delaware St., Indianapolis, Ind. (1904)
 MASON, FRANK R., 2822 W. Adams St., Chicago, Ill. (1909)
 MASON, JARVIS W., 100 Broadway, New York City. (1910)
 MASON, W. L., Keene, N. H. (1911)
 †MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Boston, Mass.
 †MASSACHUSETTS STATE LIBRARY, State House, Boston, Mass.
 MATHEWS, BYRON C., City High School, Newark, N. J. (1898)
 MATSON, JESSE, 222 Plymouth Bldg., Minneapolis, Minn. (1911)
 MAJOR, JAMES, University of Toronto, Toronto, Ontario, Can. (1909)
 MAY, GEORGE O., 52 William St., New York City. (1908)
 MAYER, LEVY, C/o Moran, Kraus & Mayer, Chicago, Ill. (1900)
 MAYNARD, ARCHIBALD B., Hawarden, Iowa. (1904)
 MEAD, F. S., 55 Kilby St., Boston, Mass. (1909)
 MEAD, GEORGE H., 6016 Jackson Park Ave., Chicago, Ill. (1910)
 MEAD, GURDON IRA, 126 State St., Boston, Mass. (1911)
 MEAGLEY, GEORGE CRANDALL, 8 College St., New Haven, Conn. (1911)
 †MECHANICS MERCANTILE LIBRARY, 31 Tost St., San Francisco, Calif.
 MECK, ALEXANDRE DE, Oboukhoff 6, Moscow, Russia. (1896)
 †MEDFORD PUBLIC LIBRARY, Medford, Mass.
 MEEKER, ROYAL, Princeton, N. J. (1903)
 MEHELEY, COLOMAN, Fő utca 11, Budapest, Hungary II. (1909)
 MEHURIN, R. K., Coalburg, W. Va. (1911)
 MEIER, J. L., c/o Meier & Frank Co., Portland, Ore. (1911)
 †MERCANTILE LIBRARY, Astor Place, New York City.
 †MERCANTILE LIBRARY, Broadway and Locust St., St. Louis, Mo.
 MERCHANT, ELY OTHMAN, 326 Senate Office Bldg., Washington, D. C. (1910)
 MERRIAM, A. R., 314 Collins St., Hartford, Conn. (1893)
 MERRIFIELD, WEBSTER, Pasadena, Calif. (1895)
 MERRIMAN, JAMES D., 2 Rector St., New York City. (1894)
 MERRITT, THOMAS POLK, Reading, Pa. (1911)
 MERRITT, WALTER GORDON, 27 William St., New York City. (1910)
 MESSENGER, WILLARD REED, 50 W. 69th St., New York City. (1908)

- MESSEROLE, CURTIS G., Gowrie, Iowa. (1911)
- MESTRE, HAROLD, 37 Wall St., New York City. (1911)
- METCALF, HENRY CLAYTON, Tufts College, Mass. (1900)
- METCALF, HENRY K., 600 Angell St., Providence, R. I. (1911)
- METCALF, MAYNARD M., 128 Forest St., Oberlin, Ohio. (1910)
- MEYER, BALTHASAR HENRY, University of Wisconsin, Madison, Wis. (1899)
- MEYER, EUGENE, JR., 7 Wall St., New York City. (1909)
- MICHAEL, CHARLES W., Perryman, Harford Co., Md. (1902)
- †MICHIGAN AGRICULTURAL COLLEGE LIBRARY, East Lansing, Mich.
- †MICHIGAN STATE LIBRARY, Lansing, Mich.
- †MICHIGAN, UNIVERSITY OF, Library, Ann Arbor, Mich.
- MIDDLETON, JOSEPH HENRY, 28 Dana Ave., Albany, N. Y. (1904)
- MIKAMI, YOSHINAGA, C/o Mitsui & Co., Kobe, Japan. (1901)
- MIKKELSEN, MICHAEL ANDREW, 353 S. Fifth Ave., Mt. Vernon, N. Y. (1900)
- MILES, HERBERT E., Sta. A, Racine, Wis. (1910)
- MILLER, ADOLPH CASPAR, Berkeley, Calif. (1901)
- MILLER, D., C. B. & Q. Ry. Co., Chicago, Ill. (1910)
- MILLER, EDMUND THORNTON, University Station, Austin, Texas. (1909)
- MILLER, GEORGE P., 102 Wisconsin St., Milwaukee, Wis. (1907)
- MILLER, J. E., 1849 C St., Lincoln, Nebr. (1904)
- MILLER, WALLACE ELDEN, 225 Orchard Ave., Lebanon, Ohio. (1904)
- MILLER, WILLIAM WILSON, Wyoming Apartments, Seventh Ave. and 55th St. New York City. (1904)
- MILLICAN, ALFRED CLAY, Station F, Seattle, Wash. (1908)
- MILLIKEN, JOHN B., 9 Murray St., New York, N. Y. (1911)
- MILLION, JOHN W., Mexico, Mo. (1901)
- MILLS, HARRY ALVIN, Palo Alto, Calif. (1895)
- MILLS, A. L., First Natl. Bank, Portland, Ore. (1911)
- MILLS, HERBERT ELMER, Poughkeepsie, N. Y. (1890)
- †MILWAUKEE PUBLIC LIBRARY, Milwaukee, Wis.
- †MINNEAPOLIS PUBLIC LIBRARY, Minneapolis, Minn.
- †MINNESOTA TAX COMMISSION, State Capital, St. Paul, Minn.
- †MINNESOTA, UNIVERSITY OF, Minneapolis, Minn.
- †MINNESOTA, UNIVERSITY OF, Dept. of Agriculture, University Farm, St. Paul Minn.
- †MISCH & THRON, 126 Rue Royale, Brussels, Belgium.
- †MISSOURI, UNIVERSITY OF, Library, Columbia, Mo.
- MITCHELL, JAMES ANDERSON, 622 First Natl. Bank Bldg., Birmingham, Ala. (1910)
- MITCHELL, JAMES ENNIS, Alma, Mich. (1900)
- MITCHELL, J. SHERMAN, 1413 Pacific St., Brooklyn, N. Y. (1910)
- MITCHELL, S. ROGER, 79 Wall St., New York City. (1910)
- MITCHELL, WESLEY CLAIR, 2250 Prospect St., Berkeley, Calif. (1903)
- MIXTER, CHARLES WHITNEY, 57 Buell St., Burlington, Vt. (1890)
- MOELLER, ERNEST A., 503 Pioneer Press Bldg., St. Paul, Minn. (1910)
- MOFFAT, ADELENE, 138 Newbury St., Boston, Mass. (1909)
- MOHR, LOUIS, 319 W. Illinois St., Chicago, Ill. (1910)
- MOLONEY, W. A., Notre Dame, Ind. (1911)
- MONIER, ROY H., Carrollton, Mo. (1909)

†MONTANA HISTORICAL and MISCELLANEOUS LIBRARY, Helena, Mont.

- MOORE, FREDERICK WIGHTMAN, Vanderbilt University, Nashville, Tenn. (1892)
 MOORE, HENRY LUDWELL, Columbia University, New York City. (1896)
 MOORE, J. CLARK, 3907 Spruce St., Philadelphia, Pa. (1911)
 MOORE, JOHN W., The Citadel, Charleston, S. C. (1910)
 MOORE, LUMAN G., JR., Kinsman, Ohio. (1911)
 MOORE, ROBERT, Laclede Bldg., St. Louis, Mo. (1894)
 MOORE, WM. V., 610 Wayne Co. Savings Bank Bldg., Detroit, Mich. (1910)
 MOORS, JOHN F., 111 Devonshire St., Boston, Mass. (1909)
 MOOT, ADELBERT, 45 Erie Co. Savings Bank Bldg., Buffalo, N. Y. (1910)
 MOREHOUSE, SAMUEL C., 42 Church St., New Haven, Conn. (1909)
 MORGAN, CHARLES W., 528 W. 153d St., New York City. (1911)
 MORGAN, J. A., Trinity College, Durham, N. C. (1909)
 MORGENTHAU, HENRY, 165 Broadway, New York City. (1911)
 MORGENTHAU, M. L., 360 Washington St., New York City. (1909)
 MORMAN, JAMES B., Kensington, Md. (1906)
 MORRIS, RAY, 5 Nassau St., New York City. (1909)
 MORRIS, WILFRED R., Peterborough, Ont., Can. (1909)
 MORRISON, A. F., Crocker Bldg., San Francisco, Calif. (1911)
 MORRISON, JOSEPH, 98 Arnold St., Lonsdale, R. I. (1911)
 MORSE, ARTHUR A., 1731 Park Ave., Minneapolis, Minn. (1909)
 MORSE, FRANK L., Ithaca, N. Y. (1910)
 MORSE, GODFREY, 53 State St., Boston, Mass. (1909)
 MORSE, ISAAC H., 1691 Bush St., San Francisco, Calif. (1911)
 MORSS, JOHN WELLS, 60 State St., Boston, Mass. (1909)
 MORTLAND, INEZ, Louisiana State University Library, Baton Rouge, La. (1909)
 MORTON, ALFRED B., 201 Longwood Rd., Roland Park, Baltimore, Md. (1911)
 MORTON, ARTHUR VILLIERS, 1342 Spruce St., Philadelphia, Pa. (1911)
 MORTON, D. WALTER, 1117 S. 3d St., Champaign, Ill. (1909)
 MORVILLE, ROBERT JR., Jamaica Plain, Mass. (1911)
 MORWITZ, JOSEPH, The Gladstone, 11th & Pine Sts., Philadelphia, Pa. (1911)
 MOSELEY, EDWARD AUGUSTUS, 1113 16th St., N. W., Washington, D. C. (1900)
 MOSLE, GEORGE R., Gladstone, Somerset Co., N. J. (1911)
 MOSSER, STACY C., 153 La Salle St., Chicago, Ill. (1911)
 MOTLEY, JAMES M., Brown University, Providence, R. I. (1910)
 MOTT, HOWARD S., 100 Broadway, New York City. (1910)
 MOULTON, H. G., University of Chicago, Chicago, Ill. (1911)
 †MOUNT HOLYOKE COLLEGE LIBRARY, South Hadley, Mass.
 MOURASSE, HAROUO, 24 Harukinatchi Santchomé, Hongo, Tokyo, Japan. (1901)
 MOYER, MELBOURNE S., 164 DeKalb Ave, Brooklyn, N. Y. (1910)
 MOYNAHAN, GEORGE S., 170 Summer St., Boston, Mass. (1904)
 MUERMAN, JOHN CHARLES, Pullman, Wash. (1910)
 MUHLEMAN, MAURICE LOUIS, 15 William St., New York City. (1892)
 MUISE, ALBERT CHARLES, 2518 17th St., Washington, D. C. (1903)
 MUIRHEAD, JAMES F., 10 Channing Place, Cambridge, Mass. (1909)
 MULFORD, HERBERT B., 931 Twelfth St., Wilmette, Ill. (1911)
 MULLANEY, BERNARD J., City Hall, Chicago, Ill. (1910)
 MULLEN, ALBERT OSWALD, 330 E. Lafayette Ave., Baltimore, Md. (1909)

- MULLIKEN, ALFRED H., 1042 Lake Shore Drive, Chicago, Ill. (1910)
 MULLIN, HENRY J., 403 Lonsdale Bldg., Duluth, Minn. (1911)
 MUMFORD, HERBERT W., Urbana, Ill. (1909)
 MUNN, JOHN P., 18 W. 58th St., New York City. (1911)
 MUNROE, JAMES PHINNEY, 77 Summer St., Boston, Mass. (1887)
 MURDOCH, ARTHUR EDWARD, 824 Union St., New Orleans, La. (1911)
 MURDOCK, LOUISE HAMILTON, Holden, Mass. (1910)
 MURPHY, JOHN J., 42 Broadway, New York City. (1909)
 MURRAY, WALTER C., University of Saskatchewan, Saskatoon, Sask., Can. (1910)
 MUSSELMAN, D. PAUL, 5205 Archer St., Philadelphia, Pa. (1911)
 MUSSEY, HENRY RAYMOND, Columbia University, New York City. (1902)
 NAGEL, CHARLES, Bureau of Commerce and Labor, Washington, D. C. (1901)
 NAKAGAWA, S., Furukawa Mining Co., Tokyo, Japan. (1907)
 †NATIONAL MONETARY COMMISSION, Library of, Washington, D. C.
 NAU, CARL H., 1102 American Trust Bldg., Cleveland, Ohio. (1910)
 NEARING, SCOTT, University of Pennsylvania, Philadelphia, Pa. (1908)
 †NEBRASKA STATE LIBRARY, Lincoln, Nebr.
 †NEBRASKA, UNIVERSITY OF, Library, Lincoln, Nebr.
 NEEB, CHARLES W., P. O. Box 127, Pittsburg, Pa. (1886)
 NEILL, CHARLES P., Department of Labor, Washington, D. C. (1896)
 NEILSON, MISS N., Mt. Holyoke College, South Hadley, Mass. (1911)
 NELSON, E. K., Ridley Park, Del. Co., Pa. (1911)
 NEVILLÉ, GEORGE W., 82 Beaver St., New York City. (1911)
 †NEWARK PUBLIC LIBRARY, Newark, N. J.
 †NEW BEDFORD PUBLIC LIBRARY, New Bedford, Mass.
 †NEWBERRY LIBRARY, Chicago, Ill.
 NEWBERGER, DAVID M., 302 Broadway, New York City. (1911)
 NEWCOMB, HARRY TURNER, R. F. D. No. 1, Bethesda, Md. (1889)
 †NEW HAMPSHIRE STATE LIBRARY, Concord, N. H.
 †NEW YORK PUBLIC LIBRARY, 476 Fifth Ave., New York City.
 †NEW YORK SCHOOL OF PHILANTHROPY, Public Sociological Library, 105 E. 22d St., New York City.
 †NEW YORK STATE LIBRARY, Albany, N. Y.
 †NEW YORK UNIVERSITY LIBRARY, University Heights, New York City.
 †NEW YORK UNIVERSITY SCHOOL OF COMMERCE, ACCOUNTS, AND FINANCE, Washington Square E., New York City.
 NICKERSON, JOHN, JR., 405 Olive St., St. Louis, Mo. (1910)
 NIELDS, JOHN P., 800 Equitable Bldg., Wilmington, Del. (1910)
 NORRIS, MRS. ROLLIN, Glen Lane, Ardmore, Pa. (1909)
 †NORTH CAROLINA, UNIVERSITY OF, Library, Chapel Hill, N. C.
 †NORTH DAKOTA PUBLIC LIBRARY COMMISSION, Bismarck, N. D.
 NORTH, FRANKLIN MASON, 121 W. 122d St., New York City. (1909)
 NORTH, S. NEWTON DEXTER, 15 Jackson Pl., Washington, D. C. (1893)
 †NORTHWESTERN STATE NORMAL SCHOOL, Alva, Okla.
 †NORTHWESTERN UNIVERSITY LIBRARY, Evanston, Ill.
 NORTON, FRED LEWIS, 434 Tremont Bldg., Boston, Mass. (1887)
 NORTON, J. PEASE, 563 Orange St., New Haven, Conn. (1901)
 NORTON, SAMUEL WILBER, 1420 Ashland Block, Chicago, Ill. (1910)

- NOURSE, EDWIN G., Vermilion, S. D. (1910)
- NOYES, ALEXANDER DANA, *Evening Post*, New York City. (1899)
- †OBERLIN COLLEGE LIBRARY, Oberlin, Ohio.
- OCHS, ADOLPH S., *The New York Times*, Times Square, New York City. (1911)
- OGDEN, CHARLES W., San Antonio, Texas. (1910)
- OGG, FREDERIC AUSTIN, 401 Broadway, Cambridge, Mass. (1910)
- O'HARA, FRANK, Catholic University of America, Brookland, D. C. (1910)
- †OHIO STATE LIBRARY, Columbus, Ohio.
- †OHIO STATE UNIVERSITY LIBRARY, Columbus, Ohio.
- †OHIO WESLEYAN UNIVERSITY LIBRARY, Delaware, Ohio.
- OHNUKI, CHUICHI, C/o Mitsui & Co., 445 Broome St., New York City. (1909)
- †OKLAHOMA, UNIVERSITY OF, Norman, Okla.
- †OKURASHO-RINJI-KOKUSAI-SEIRIKYOKU, Department of Finance, Tokyo, Japan.
- OLCOTT, DUDLEY, Albany, N. Y. (1911)
- OLDHAM, JOHN E., 35 Congress St., Boston, Mass. (1909)
- †OMAHA PUBLIC LIBRARY, Omaha, Nebr.
- †ONTARIO LEGISLATIVE LIBRARY, Toronto, Ontario, Can.
- †OREGON UNIVERSITY LIBRARY, Eugene, Ore.
- ORPIN, ROBERT C., 63 Oakland St., Medford, Mass. (1911)
- †OSAKA CITY HIGHER COMMERCIAL SCHOOL, Osaka, Japan.
- OSBORN, WILLIAM C., 71 Broadway, New York City. (1910)
- OSBORNE, THOMAS MOTT, Auburn, N. Y. (1904)
- OSGOOD, ROY CLIFTON, C/o First Trust and Savings Bank, First Natl. Bank Bldg., Chicago, Ill. (1904)
- OSGOOD, WHITMAN, Bureau of the Census, Washington, D. C. (1911)
- OTIS, HARRISON GRAY, 2401 Wilshire Boulevard, Los Angeles, Calif. (1911)
- OTIS, SPENCER, 523 Railway Exchange, Chicago, Ill. (1911)
- OTIS, STANLEY L., 95 William St., New York City. (1909)
- OTTOMAN, FRED H., 7209 Kedron Ave., Pittsburg, Pa. (1910)
- OVINGTON, MARY W., 246 Fulton St., Brooklyn, N. Y. (1910)
- OWEN, THOMAS M., Alabama Department of Archives and History, Montgomery, Ala. (1908)
- PACE, HOMER S., 50 Church St., New York City. (1910)
- PAGE, EDWARD D., Oakland, N. J. (1888)
- PAGE, FREDERICK PALMER, 49 Wall St., New York, N. Y. (1911)
- PAGE, THOMAS WALKER, University of Virginia, Charlottesville, Va. (1900)
- PAGE, WALTER H., 130 East 67th St., New York City. (1910)
- PALEN, RUFUS JAMES, Santa Fe, New Mexico. (1911)
- *PALGRAVE, ROBERT HARRY INGLIS, Henstead Hall, Wrentham, Suffolk, Eng. (1890)
- PALMER, GEORGE THOMAS, 1225 Hill St., Wilmette, Ill. (1909)
- PARK, GEORGE ARTHUR, 121 W. Ormsby Ave., Louisville, Ky. (1904)
- PARK, JAMES, 149 Broadway, New York City. (1911)
- PARKER, CARL WILLIAM, Wharton School, Philadelphia, Pa. (1910)
- PARMELEE, JULIUS H., Bureau of the Census, Washington, D. C. (1906)
- PARMELEE, MAURICE, University of Missouri, Columbia, Mo. (1908)
- PARRIS, MARION, Bryn Mawr, Pa. (1906)
- PARRY, CARL EUGENE, University of Michigan, Ann Arbor, Mich. (1909)
- PARSONS, HOWARD H., 84 Warren Ave., East, Detroit, Mich. (1911)

- PATTEN, FRANK CHAUNCEY, Rosenberg Library, Galveston, Texas. (1904)
- PATTEN, SIMON NELSON, University of Pennsylvania, Philadelphia, Pa. (1886)
- PATTERSON, GAYLORD H., Kimball College, Salem, Ore. (1909)
- PATTON, EUGENE BRYAN, Department of Labor, Albany, N. Y. (1908)
- PAXSON, CHARLES, P. O. Box 146, Swarthmore, Pa. (1909)
- PEABODY, FREDERICK F., 1 Elk St., Albany, N. Y. (1911)
- *PEABODY, GEORGE FOSTER, 2 Rector St., New York City. (1902)
- †PEABODY INSTITUTE, Baltimore, Md.
- PEARMAN, SUMNER BASS, 53 State St., Boston, Mass. (1902)
- PEARSON, GEORGE EDWARD, 325 Highland Ave., W. Somerville, Mass. (1910)
- PEAT, JAMES B., Bureau of Corporations, Washington, D. C. (1909)
- PEAVEY, LEROY D., Wellesley Hills, Mass. (1910)
- PEIEFF, NICHOLAS ELIAS, 1050 Yale Station, New Haven, Conn. (1909)
- PEIRCE, MARY B., 1616 N. Broad St., Philadelphia, Pa. (1911)
- PEIRCE, PAUL SKEELS, State University, Iowa City, Iowa. (1909)
- PEIXOTTO, JESSICA B., Cloyne Court, Berkeley, Calif. (1909)
- PELLETIER, VICTOR M., 4 Howland St., Roxbury, Mass. (1909)
- PELOUBET, LOUIS G., 42 Broadway, New York City. (1910)
- PEMBERTON, HENRY AUGUSTUS, 339 Monadnock Bldg., Chicago, Ill. (1911)
- †PENNSYLVANIA STATE COLLEGE, State College, Pa.
- †PENNSYLVANIA STATE LIBRARY, Harrisburg, Pa.
- †PENNSYLVANIA STATE LIBRARY, Legislative Reference Bureau, Harrisburg, Pa.
- †PENNSYLVANIA, UNIVERSITY OF, Library, Philadelphia, Pa.
- PERKINS, DEXTER, 176 Huntington Ave., Boston, Mass. (1910)
- PERKINS, JACOB HENRY, 14 Victoria Square, Clifton, Bristol, Eng. (1901)
- PERRIN, JOHN, 30 Blackerne, Indianapolis, Ind. (1911)
- PERRY, ALFRED T., Marietta, Ohio. (1910)
- PERSON, HARLOW STAFFORD, Hanover, N. H. (1901)
- PERSONS, CHARLES EDWARD, 2015 Orrington Ave., Evanston, Ill. (1910)
- PERSONS, WARREN MILTON, 22 E. Del Norte St., Colorado Springs, Colo. (1904)
- PETERS, EDWARD T., P. O. Box 2482, Washington, D. C. (1886)
- PFEFFER, C. A., Chalmers Motor Co., Detroit, Mich. (1911)
- PFEIFFER, FELIX, 943 Madison Ave., New York City. (1911)
- PHELAN, JAMES DUVAL, 1840 California St., San Francisco, Calif. (1911)
- PHELAN, JAMES J., 60 Congress St., Boston, Mass. (1909)
- PHELAN, RAYMOND V., University of Minnesota, Minneapolis, Minn. (1905)
- PHELPS, EDWARD BUNNELL, 141 Broadway, New York City. (1909)
- PHIELPS, ESMOND, 708 Union St., New Orleans, La. (1911)
- PHIELPS, ROSWELL F., 127 Oakdale Ave., East Dedham, Mass. (1909)
- †PHILADELPHIA FREE LIBRARY, 13th and Locust Sts., Philadelphia, Pa.
- †PHILADELPHIA LIBRARY, Juniper and Locust Sts., Philadelphia, Pa.
- †PHILIPPINES LIBRARY, Manila, P. I.
- PHILIPS, CALVIN, Tacoma, Wash. (1911)
- PHILLIPS, GEORGE M., The First National Bank, Northfield, Minn. (1909)
- PHILLIPS, HENRY, 284 State St., Springfield, Mass. (1909)
- PHILLIPS, JOHN BURTON, Boulder, Colo. (1902)
- *PHIPPS, LAWRENCE C., 1154 E. Colfax Ave., Denver, Colo. (1901)
- *PIGOU, ARTHUR CECIL, King's College, Cambridge, Eng. (1908)
- PITTMAN, ARTHUR B., 2436 Montgall Ave., Kansas City, Mo. (1910)

- †PITTSBURGH, UNIVERSITY OF, Pittsburgh, Pa.
- †PLAINFIELD PUBLIC LIBRARY, Plainfield, N. J.
- PLANTEN, JOHN R., 44 Eighth Ave., Brooklyn, N. Y. (1911)
- PLATT, LAURA N., 1831 Pine St., Philadelphia, Pa. (1911)
- PLEHN, CARL COPPING, 2308 Warring St., Berkeley, Calif. (1891)
- PLEYDELL, A. C., 29 Broadway, New York City. (1909)
- PLIMPTON, GEORGE ARTHUR, 70 Fifth Ave., New York City. (1887)
- PLUNKETT, G. T., Hinsdale, Mass. (1911)
- POHS, FRANK, 1567 Woodlawn Ave., Cleveland, Ohio. (1911)
- †POLAND (Mr.), C/o Sotheran & Co., 140 Strand, London, Eng.
- POLLAK, FRANCIS D., 427 W. 144th St., New York City. (1910)
- POLLEYS, THOMAS A., C/o C. St. P., M. & O. Ry., St. Paul, Minn. (1911)
- POND, PHILIP, 39 Church St., New Haven, Conn. (1911)
- POPE, JESSE ELIPHALET, 910 Lawrence St., Washington, D. C. (1900)
- PORTER, WILLIAM H., 56 East 67th St., New York City. (1894)
- PORTER, WILLIS D., 24 Stone St., New York City. (1911)
- †PORTSMOUTH FREE PUBLIC LIBRARY, Portsmouth, Ohio.
- POTTER, WILLIAM P., Swarthmore, Pa. (1909)
- POWELL, BRADFORD, Point O'Woods, Long Island, N. Y. (1911)
- POWELL, FRED WILBUR, 731 Real Estate Trust Bldg., Philadelphia, Pa. (1911)
- POWELL, LOUIS W., Warren, Ariz. (1911)
- POWERS, HARRY HUNTINGTON, Trinity Place, Boston, Mass. (1910)
- POWERS, LeGRAND, 3355 18th St., N. W., Washington, D. C. (1886)
- POWERS, LELAND, Lock Box 373, Hanover, N. H. (1910)
- PRATT, EDWARD EWING, 105 East 22d St., New York City. (1909)
- PRATT, GEORGE C., 15 Dey St., New York City. (1909)
- †PRATT INSTITUTE FREE LIBRARY, Brooklyn, N. Y.
- PRATT, SERENO S., 104 Cambridge Place, Brooklyn, N. Y. (1903)
- PRENDERGAST, WILLIAM A., 31 Nassau St., New York City. (1907)
- PRESCOTT, ARTHUR TAYLOR, 739 North St., Baton Rouge, La. (1900)
- PRESTON, CHARLES HERBERT, University of Minnesota, Minneapolis, Minn. (1910)
- PRESTON, HAROLD, Pioneer Bldg., Seattle, Wash. (1901)
- PRICE, WILLIAM HYDE, 915 University Ave., Madison, Wis. (1902)
- PRIDE, EDWIN L., 8 Congress St., Boston, Mass. (1910)
- PRINCE, BENJAMIN F., 644 Wittenberg Ave., Springfield, Ohio. (1910)
- PRINCE, LEON C., Carlisle, Pa. (1909)
- †PRINCETON UNIVERSITY, Economic Seminary, Princeton, N. J.
- †PRINCETON UNIVERSITY LIBRARY, Princeton, N. J.
- PROBERT, EDWIN, 380 Broadway, New York City. (1910)
- PROUTY, CHARLES AZRO, Newport, Vt. (1902)
- PRUYN, ROBERT C., 60 State St., Albany, N. Y. (1911)
- PUGH, ALEXANDER L., 161 Madison Ave., Elizabeth, N. J. (1909)
- †PUNJAB UNIVERSITY LIBRARY, Senate House, Lahore, India.
- PURDY, LAWSON, Hall of Records, New York City. (1900)
- PUTNAM, BERTHA HAVEN, Mount Holyoke College, South Hadley, Mass. (1903)
- PUTNAM, HARRINGTON, 404 Washington Ave., Brooklyn, N. Y. (1887)
- PUTNAM, JAMES WILLIAM, Butler College, Indianapolis, Ind. (1905)

- PYLE, J. G., 726 Globe Bldg., St. Paul, Minn. (1911)
 QUINN, JOHN, 31 Nassau St., New York City. (1910)
 †RADICAL CLUB, Scottdale, Pa.
 RAHILL, JOHN J., P. O. Box 257, Berkeley, Calif. (1910)
 RALEIGH, CHAS. J., 316 President St., Brooklyn, N. Y. (1911)
 RAMAGE, BURR JAMES, Bureau of Corporations, Washington, D. C. (1900)
 RANCK, SAMUEL H., Grand Rapids Public Library, Grand Rapids, Mich. (1906)
 †RAND SCHOOL OF SOCIAL SCIENCE, 112 E. 19th St., New York City.
 RAND, WALDRON H., 59 Temple Place, Boston, Mass. (1910)
 RANDOLPH, E. F., 1654 Massachusetts Ave., Cambridge, Mass. (1890)
 RANKIN, JAMES C., 16 Glenwood Ave., Woodfords, Me. (1911)
 RAPER, CHARLES LEE, Chapel Hill, N. C. (1902)
 RASKOB, JOHN J., Claymont, Del. (1911)
 RASTALL, BENJAMIN M., University of Wisconsin, Madison, Wis. (1908)
 RATH, JAMES A., Honolulu, H. T. (1910)
 RAVENSCROFT, W. T., 17th and California Sts., Denver, Colo. (1911)
 RAWLES, WILLIAM A., Bloomington, Ind. (1900)
 RAY, WALTER T., Spartanburg, S. C. (1905)
 RAYNER, ALBERT W., 1814 Eutaw Place, Baltimore, Md. (1898)
 READ, JOHN M., 1461 Penn Ave., Des Moines, Iowa. (1911)
 REARICK, A. C., 71 Broadway, New York City. (1910)
 REBER, JAMES T., 232 North 6th St., Reading, Pa. (1911)
 RECTOR, ELBRIDGE L., San Saba, Texas. (1910)
 REDFIELD, NELSON M., 834 Prudential Bldg., Buffalo, N. Y. (1911)
 REED, J. DAVIS, Portsmouth, Va. (1911)
 REILLY, GARRETT LLOYD, Rosemont, Pa. (1911)
 REILLY, WM. V., Little Falls, N. J. (1911)
 REYNOLDS, ALLEN H., Walla Walla, Wash. (1894)
 REYNOLDS, JAMES BRONSON, 151 Central Park, W., New York City. (1910)
 †REYNOLDS LIBRARY, Rochester, N. Y.
 RHODES, JOHN HARSEN, 45 Wall St., New York City. (1911)
 †RHODE ISLAND STATE LIBRARY, Providence, R. I.
 RHODES, JAMES FORD, 392 Beacon St., Boston, Mass. (1887)
 RIANHARD, THOMAS M., 17 Battery Place, New York City. (1911)
 RICE, EDWARD D., 620 Atlantic Ave., Boston, Mass. (1911)
 RICH, EDGAR J., 1002 Pemberton Bldg., Boston, Mass. (1909)
 RICH, JOSEPH W., 427 North Dubuque St., Iowa City, Iowa. (1902)
 RICHARDS, RICHARD O., Huron, S. D. (1910)
 RICHARDSON, E. STANLEY, 604 Commonwealth Bldg., Philadelphia, Pa. (1911)
 RICHMOND, THOMAS C., Madison, Wis. (1900)
 RIPLEY, WILLIAM ZEBINA, Newton Centre, Mass. (1890)
 RITCHIE, JAMES, West Summerland, B. C. (1911)
 RIVES, GEORGE LOCKHART, 69 E. 79th St., New York City. (1899)
 ROBB, RUSSELL, 147 Milk St., Boston, Mass. (1911)
 ROBB, WILLIS O., 123 William St., New York City. (1911)
 ROBBINS, EDWARD D., 408 St. Ronan St., New Haven, Conn. (1911)
 ROBERTS, GEORGE E., Treasury Department, Washington, D. C. (1901)
 ROBERTS, WILLIAM H., 1208 Michigan Ave., Chicago, Ill. (1910)
 ROBERTSON, VIRGIL O., Jackson, Miss. (1910)

- ROBINS, RAYMOND, 1437 W. Ohio St., Chicago, Ill. (1910)
- ROBINSON, EDWARD C., 25 Pine St., New York City. (1910)
- ROBINSON, E. V., University of Minnesota, Minneapolis, Minn. (1907)
- ROBINSON, F. B., 139th St., and Convent Ave., New York City. (1908)
- ROBINSON, H. B., Box 135, Allentown, Pa. (1911)
- *ROBINSON, MRS. JANE BANCROFT, 425 Cass Ave., Detroit, Mich. (1893)
- ROBINSON, J. M., St. John, N. B. (1911)
- ROBINSON, LOUIS N., Swarthmore, Pa. (1909)
- ROBINSON, MAURICE HENRY, Urbana, Ill. (1899)
- ROBINSON, PHILIP ALEXANDER, 63 Inman St., Cambridge, Mass. (1901)
- ROBINSON, SAMUEL ADAMS, Crozet, Va. (1898)
- ROBINSON, SANFORD, 59 Wall St., New York City. (1911)
- +ROCHESTER UNIVERSITY LIBRARY, Rochester, N. Y.
- ROGERS, CHARLES B., 91 Genesee St., Utica, N. Y. (1893)
- ROGERS, EMMA WINNER (Mrs. Henry Wade), 413 Orange St., New Haven, Conn. (1890)
- ROLLINS, ALBERT MOORE, 129 W. Elm St., Brockton, Mass. (1909)
- ROOT, LOUIS CARROLL, 2108 Palmer Ave., New Orleans, La. (1894)
- ROBER, WILLIAM W., 4923 Penn St., Frankford, Philadelphia, Pa. (1911)
- ROSE, W. THOS., 1300 Washington St., Vicksburg, Miss. (1911)
- ROSENBAUM, MORRIS, 605 South 3rd St., Philadelphia, Pa. (1911)
- ROSENBLATT, FRANK F., Tariff Board, Treasury Bldg., Washington, D. C. (1909)
- ROSENBLUM, DAVID, 13 Astor Place, New York City. (1909)
- ROSENFELD, HENRY L., 120 Broadway, New York City. (1910)
- ROSENQUEST, EUGENE, Westchester, New York City. (1910)
- ROSENTHAL, LESSING, Suite 1400, Ft. Dearborn Bldg., Chicago, Ill. (1891)
- ROSENWALD, JULIUS, C/o Sears, Roebuck & Co., Chicago, Ill. (1910)
- ROSEWATER, VICTOR, *Omaha Bee*, Omaha, Nebr. (1892)
- ROSS, ADAM A., Land Title Bldg., Philadelphia, Pa. (1909)
- ROSS, EDWARD ALSWORTH, Madison, Wis. (1892)
- ROSS, T. EDWARD, 1831 Land Title Bldg., Philadelphia, Pa. (1911)
- ROSSITER, W. S., 1424 K St., N. W., Washington, D. C. (1906)
- ROUNTREE, HARRISON H., Randolph, Mass. (1909)
- ROWE, INA B., 618 Sixteenth Ave., S. E., Minneapolis, Minn. (1909)
- RUBINOW, I. M., Bureau of Labor, Washington, D. C. (1905)
- RUDD, CHANNING, 15 Wall St., New York City. (1904)
- RUGGLES, CLYDE O., 205 East 7th St., Winona, Minn. (1910)
- RUSHTON, JOSEPH HOWARD, 930 N. 36th St., Omaha, Nebr. (1911)
- RUSS, ERNEST F., 70 High St., Boston, Mass. (1909)
- RUSSELL, FREDERIC ARTHUR, Sturgis, Mich. (1909)
- RUSSELL, JAMES S., Lawrenceville, Va. (1911)
- RUSSELL, WILLIAM HEPBURN, Rooms 401-402 Mutual Reserve Bldg., 309 Broadway, New York City. (1896)
- RUTTER, FRANK R., Bureau of Manufactures, Dept. of Commerce and Labor, Washington, D. C. (1896)
- RYAN, JOHN A., St. Paul Seminary, St. Paul, Minn. (1906)
- RYMAN, JAMES H. T., Missoula, Mont. (1892)
- SACHS, RALPH L., 28 W. 23d St., New York City. (1909)

- †SACRAMENTO FREE PUBLIC LIBRARY, Sacramento, Calif.
 SADD, W. A., C/o Chattanooga Savings Bank, Chattanooga, Tenn. (1911)
 SAGE, DEAN, 49 Wall St., New York City. (1909)
 †ST. LOUIS PUBLIC LIBRARY, St. Louis, Mo.
 †ST. PAUL PUBLIC LIBRARY, St. Paul, Minn.
 SAKOLSKI, A. M., 60 Broadway, New York City. (1904)
 SALIERS, EARL A., 3339 Woodland Ave., Philadelphia, Pa. (1909)
 SAMSON, HARRY G., 433 Sixth Ave., Pittsburg, Pa. (1911)
 SANBORN, JOHN BELL, Madison, Wis. (1896)
 †SAN FRANCISCO FREE PUBLIC LIBRARY, Hayes and Franklin Sts., San Francisco, Calif.
 †SAN FRANCISCO NEWS CO., 747 Howard St., San Francisco, Calif.
 †SANGER, WILLIAM CARY, Sangerfield, N. Y. (1890)
 SANO, ZENSAKU, Higher Commercial School, Tokyo, Japan. (1899)
 SARGENT, DUDLEY A., 27 Everett St., Cambridge, Mass. (1911)
 SARGISSON, ZACCHIEUS E., Berwyn, Ill. (1909)
 SATO, SOZABURO, No. 1 Shimidsuko, Shitaya Precinct, Tokyo, Japan. (1911)
 SAUTER, WILLIAM F., 1637 Diamond St., Philadelphia, Pa. (1888)
 SAVAGE, HENRY W., 108 W. 45th St., New York City. (1911)
 SCHIAFFNER, JOSEPH, 4819 Greenwood Ave., Chicago, Ill. (1909)
 SCHIAFFNER, MARGARET A., 228 Langdon St., Madison, Wis. (1905)
 SCHAPER, WILLIAM A., University of Minnesota, Minneapolis, Minn. (1901)
 SCHIFF, JACOB H., 52 William St., New York City. (1910)
 SCHMIDLAPP, JACOB G., Cincinnati, Ohio. (1911)
 SCHMITT, ALFRED C., First National Bank, Albany, Ore. (1905)
 SCHOUER, JAMES, Intervale, N. H. (1910)
 SCHURMAN, JACOB GOULD, Cornell University, Ithaca, N. Y. (1910)
 SCHWAB, GUSTAV HENRY, 5 Broadway, New York City. (1890)
 SCHWAB, JOHN CHRISTOPHER, 310 Prospect St., New Haven, Conn. (1888)
 SCHWANER, MARTIN CHRISTIAN, 171 George St., New Haven, Conn. (1911)
 *SCOTT, AUSTIN, New Brunswick, N. J. (1890)
 SCOTT, CHARLES R., 60 Wall St., New York City. (1908)
 SCOTT, D. R., 1511 Anthony St., Columbia, Mo. (1910)
 SCOTT, GEORGE CRANCH, Framingham, Mass. (1904)
 SCOTT, WILLIAM AMASA, Madison, Wis. (1888)
 SCOVELL, C. H., 119 Grasmere St., Newton, Mass. (1909)
 †SCRANTON PUBLIC LIBRARY, Scranton, Pa.
 SCROGGS, WILLIAM OSCAR, Louisiana State University, Baton Rouge, La. (1910)
 *SCUDDER, DOREMIUS, Honolulu, H. T. (1890)
 SCULL, CHARLES O., Roland Park, Baltimore, Md. (1911)
 SCULL, HARRY, 512 Traders Bldg., Chicago, Ill. (1911)
 SEABURY, WM. A., 32 Nassau St., New York City. (1910)
 *SEAGER, HENRY ROGERS, Columbia University, New York City. (1888)
 SEALY, JOHN, South Wharf, St. John, N. B. (1911)
 SEARLE, H. F., 52 Broadway, New York City. (1910)
 SEARS, HORACE SCUDDER, 49 Federal St., Boston, Mass. (1909)
 SEATON, FAY N., 304 Senate Office Bldg., Washington, D. C. (1910)
 †SEATTLE PUBLIC LIBRARY, Seattle, Wash.
 SECRIST, HORACE, 51 North Hall, Madison, Wis. (1908)

- SEDGWICK, L. M., 412 W. 11th St., Kansas City, Mo. (1911)
- SEED, MAURICE J., Mt. Vernon, Ill. (1911)
- SEEDS, EDWARD PAXSON, 204 Tenth St., N. E., Washington, D. C. (1909)
- SEERLEY, H. H., Cedar Falls, Iowa. (1910)
- SEILER, C. LINN, University of Pennsylvania, Philadelphia, Pa. (1909)
- SELBY, ROGER A., Portsmouth, Ohio. (1910)
- *SELIGMAN, EDWIN ROBERT ANDERSON, 324 W. 86th St., New York City. (1886)
- *SELIGMAN, ISAAC NEWTON, 36 W. 54th St., New York City. (1887)
- SELIGMAN, JEFFERSON, C/o J. & W. Seligman & Co., New York City. (1910)
- SELLERS, ALEXANDER, 1600 Hamilton St., Philadelphia, Pa. (1911)
- SELLING, BERNARD B., 503 Hammond Bldg., Detroit, Mich. (1910)
- SERRILL, CHARLES LLOYD, 210 Real Estate Trust Bldg., Philadelphia, Pa. (1909)
- SEVERANCE, *Mrs.* FRANK H., 150 Jewett Ave., Buffalo, N. Y. (1909)
- SEWALL, HANNAH ROBIE, Forest Glen, Md. (1910)
- SEYMOUR, EDMUND B., 1001 Chestnut St., Philadelphia, Pa. (1911)
- SHATTUCK, JOSEPH, JR., Springfield Institute for Savings, Springfield, Mass. (1909)
- SHAW, ALBERT, New York City. (1886)
- SHAW, A. W., Winnetka, Ill. (1909)
- SHAW, IRA D., 1217 Lewis St., Charleston, W. Va. (1911)
- SHAW, WINFIELD L., 20 Cochato Road, Braintree, Mass. (1909)
- SHEA, J. B., Pennsylvania and Fifth Ave., Pittsburg, Pa. (1911)
- SHEARN, CLARENCE J., 140 Nassau St., New York City. (1911)
- SHEETS, BEATRICE H., 298 Woodland Ave., Columbus, Ohio. (1909)
- SHEPHERD, FRED STRONG, Asbury Park, N. J. (1896)
- SHEPHERD, R. P., 2712 Pine St., St. Louis, Mo. (1910)
- SHERIDAN, FRANK J., Bureau of Labor, Washington, D. C. (1910)
- SHERIDAN, HENRY C., Evans Bldg., Washington, D.C. (1911)
- SHERMAN, JOHN HARVEY, 17th and Allegheny Ave., Philadelphia, Pa. (1911)
- SHIRASU, C., C/o Viscount Kuki, Kobe, Japan. (1899)
- SHOCKLEY, WILLIAM H., 1 Queen Victoria St., London, E. C., England. (1911)
- SHOEMAKER, HERBERT BRADISH, 50 Pine St., New York City. (1910)
- SHORTT, ADAM, Civil Service Commission, Ottawa, Can. (1898)
- SHORTT, A. D., 2715 Michigan Ave., Chicago, Ill. (1911)
- SIMES, WILLIAM, P. O. Box 3084, Boston, Mass. (1894)
- SIMKHOVITCH, VLADIMIR G., Columbia University Library, New York City. (1901)
- SIMPKINS, C. WEBSTER, 1396 Dean St., Brooklyn, N. Y. (1909)
- SIMPSON, JOHN R., 453 Washington St., Boston, Mass. (1911)
- SIOUSSAT, ST. GEORGE L., Sewanee, Tenn. (1911)
- SKELTON, O. D., Queen's University, Kingston, Ont., Canada. (1909)
- SLACK, JOHN C., Edgeworth, Allegheny Co., Pa. (1911)
- SMALL, ALBION WOODBURY, 5731 Washington Ave., Chicago, Ill. (1888)
- SMALLEY, HARRISON STANDISH, 709 S. State St., Ann Arbor, Mich. (1902)
- *SMART, WILLIAM, Queen Margaret College, Glasgow, Scotland. (1888)
- SMEATON, J. V., Marshfield, Ore. (1911)
- SMITH, A. F., Box 92, Middletown, Ohio. (1911)
- +SMITH COLLEGE LIBRARY, Northampton, Mass.
- SMITH, DELAVAN, Lake Forest, Ill. (1901)

- SMITH, ERNEST ASHTON, Princeton, N. J. (1901)
- SMITH, FREDERIC A., 406 Victor Bldg., Kansas City, Mo. (1909)
- SMITH, GEORGE C., 165 Broadway, New York City. (1911)
- SMITH, H. H., 1124 Ford Bldg., Detroit, Mich. (1911)
- SMITH, HARRISON B., Charleston, W. Va. (1910)
- SMITH, HENRY E., 550 Warren St., Boston, Mass. (1911)
- *SMITH, JACOB GEORGE, 405 Emerson Ave., Syracuse, N. Y. (1903)
- SMITH, JAMES B., California, Pa. (1911)
- SMITH, JAMES B., 141 Orange St., New Haven, Conn. (1909)
- SMITH, MARY B., Wellesley Hills, Mass. (1911)
- SMITH, MILTON W., P. O. Drawer 767, Portland, Ore. (1900)
- SMITH, ROY C., Norman, Okla. (1911)
- SMITH, RUFUS D., 535 Fulton Bldg., Pittsburg, Pa. (1910)
- SMITH, SAMUEL GEORGE, 125 College Ave., St. Paul, Minn. (1894)
- SMITH, SYDNEY A., 27 W. 67th St., New York City. (1911)
- SMITH, THOMAS GUILFORD, 203a Ellicott Square, Buffalo, N. Y. (1887)
- SMITH, ULYSSES H., Indiana University, Bloomington, Ind. (1909)
- SMITH, WARD B., Houghton, Mich. (1911)
- SMYTH, ISAAC S., JR., 6123 Greene St., Germantown, Philadelphia, Pa. (1911)
- SNOW, MARSHALL SOLOMON, Washington University, St. Louis, Mo. (1901)
- SNOW, WILLIAM G., 24 Milk St., Boston, Mass. (1909)
- SOMMERS, FRANK F., JR., 550 Weadock Ave., Saginaw, Mich. (1911)
- †SOUTH DAKOTA AGRICULTURAL COLLEGE LIBRARY, Brookings, S. D.
- †SOUTHER, CHARLES EDWARD, 128 Broadway, New York City. (1887)
- †SOUTHERN CALIFORNIA, UNIVERSITY OF, Los Angeles, Calif.
- †SOUTHWESTERN UNIVERSITY LIBRARY, Georgetown, Texas.
- SOUTHWORTH, IRVING, Lawrence, Mass. (1911)
- SPENCER, CHARLES WORTHEN, Princeton University, Princeton, N. J. (1894)
- SPENCER, JOHN OAKLEY, Morgan College, Baltimore, Md. (1890)
- SPRAGUE, OLIVER M. W., 18 Sumner Road, Cambridge, Mass. (1900)
- *SPRAGUE, RUFUS F., Greenville, Mich. (1890)
- SQUIRE, ANDREW, 3443 Euclid Ave., Cleveland, Ohio. (1911)
- STAATS, WALTER J., Merchantville, N. J. (1910)
- STAGG, J. H., Apartado 1403, Mexico City, Mex. (1911)
- STANDER, LOUIS E., Tribune Bldg., 154 Nassau St., New York City. (1911)
- STANGELAND, CHARLES EMIL, 5910 Erie St., Austin, Chicago, Ill. (1903)
- STANTON, EDGAR WILLIAM, Iowa State College, Ames, Iowa. (1888)
- †STATE MANUAL TRAINING NORMAL SCHOOL, Pittsburg, Kan.
- STEELE, GEORGE FRANCIS, Port Edwards, Wood Co., Wis. (1911)
- †STEIGER & Co., Newspaper Box 298, New York City.
- STEINER, BERNARD C., Enoch Pratt Free Library, Baltimore, Md. (1910)
- STEINMETZ, SPENCER J., Box 3167, Boston, Mass. (1911)
- STEPHENS, GEORGE WARE, 607 Conklin Pl., Madison, Wis. (1909)
- STEPHENS, HENRY MORSE, Berkeley, Calif. (1901)
- STERN, EDGAR BLOOM, 5115 St. Charles Ave., New Orleans, La. (1911)
- STERNS, FREDERICK H., University of Omaha, Omaha, Nebr. (1910)
- STERNS, WORTHY PUTNAM, 1833 Lamont St., Washington, D. C. (1901)
- STERRETT, J. E., 54 William St., New York City. (1909)
- STETSON, FRANCIS LYNDE, 15 Broad St., New York City. (1909)

- STEWART, WILLIAM M., The Kensington, Washington, D. C. (1898)
- STEVENS, EMER T., Hotel Kenwood, Chicago, Ill. (1911)
- STEVENS, RICHARD, 1 Newark St., Hoboken, N. J. (1911)
- STEWART, ETHELBERT, 3754 North 41st Court, Chicago, Ill. (1910)
- STEWART, HAMILTON, Farmers Bank Bldg., Pittsburg, Pa. (1911)
- STEWART, JOHN LAMMEY, South Bethlehem, Pa. (1887)
- STEWART, WALTER W., Columbia, Mo. (1910)
- STICKNEY, CLINTON G., C/o Walworth Mfg. Co., South Boston, Mass. (1909)
- STOCKTON, FRANK TENNEY, 2915 W. North Ave., Baltimore, Md. (1909)
- STOCKWELL, HERBERT G., 831 Land Title Bldg., Philadelphia, Pa. (1910)
- STOKES, ANSON PHELPS, 100 William St., New York City. (1894)
- STOKES, HOWARD KEMBLE, 11 Pine St., New York City. (1902)
- STOKES, J. G. PHELPS, Stamford, Conn. (1911)
- STONE, ALFRED HOLT, Dunleith, Miss. (1900)
- STONE, GALEN L., 87 Milk St., Boston, Mass. (1909)
- STONE, NAHUM I., Tariff Board, Washington, D. C. (1899)
- STORROW, JAMES J., 44 State St., Boston, Mass. (1909)
- STRATTON, ROBERT M., 70 W. 52nd St., New York City. (1904)
- STRAUS, ISIDOR, Sixth Ave. and 34th St., New York City. (1894)
- STRAUS, OSCAR SOLOMON, Elberon, N. J. (1886)
- STREET, ROBERT GOULD, Galveston, Texas. (1896)
- STREIGHTOFF, FRANK HATCH, 85 Macon St., Brooklyn, N. Y. (1910)
- STROOCK, SOL M., 30 Broad St., New York City. (1909)
- STUART, CHARLES M., 57 Washington St., Chicago, Ill. (1911)
- SUFFERN, EDWARD L., 165 Broadway, New York City. (1909)
- SULLIVAN, P. F., 84 State St., Boston, Mass. (1911)
- SULZBERGER, CYRUS L., 516 West End Ave., New York City. (1904)
- SUMNER, GEORGE S., Claremont, Calif. (1905)
- SUMNER, HELEN L., 2852 Ontario Road, Washington, D. C. (1903)
- SWAIN, HENRY HUNTINGTON, Dillon, Mont. (1894)
- †SWARTHMORE COLLEGE LIBRARY, Swarthmore, Pa.
- *SWAYNE, WAGER, 170 Broadway, New York City. (1887)
- SWAYZE, FRANCIS J., 765 High St., Newark, N. J. (1905)
- SWENSON, JOHN CANUTE, Provo, Utah. (1909)
- SWIFT, WILLIAM H., 1309 Delaware Ave., Wilmington, Del. (1911)
- SWOPE, GERARD, 463 West St., New York City. (1911)
- SYMMES, FRANK JAMESON, 322 Montgomery St., San Francisco, Calif. (1904)
- †SYRACUSE PUBLIC LIBRARY, Syracuse, N. Y.
- †SYRACUSE UNIVERSITY LIBRARY, Syracuse, N. Y.
- TABOR, EDWARD O., 475 Morrison St., Portland, Ore. (1911)
- †TAKEMURA, KINJI, C/o Y. Ikeda, 27 Masagocho, Hongo, Tokyo, Japan.
- TAKEUCHI, SEIICHI, 822 S. Flower St., Los Angeles, Calif. (1910)
- TALBOT, WINTHROP, M. D., 1818 E. 45th St., Cleveland, Ohio. (1911)
- †TANAKA, M. I., Librarian Imperial Library, Tokyo, Japan.
- TAO, DAQUEEN, 321 Dryden Road, Ithaca, N. Y. (1910)
- TAPLIN, HARRY BLAKE, 6 Garland St., Boston, Mass. (1911)
- TAPPAN, J. B. COLES, 49 Wall St., New York City. (1909)
- TARBELL, IDA M., 341 Fifth Ave., New York City. (1903)

- TAUSSIG, BENJAMIN J., City Hall, St. Louis, Mo. (1909)
- TAUSSIG, FRANK WILLIAM, 2 Scott St., Cambridge, Mass. (1887)
- TAUSSIG, RUDOLPH JULIUS, 3134 16th St., San Francisco, Calif. (1904)
- TAYLOR, FRED MANVILLE, 527 Church St., Ann Arbor, Mich. (1892)
- TAYLOR, GRAHAM, 953 Grand Ave., Chicago, Ill. (1890)
- TAYLOR, HENRY CHARLES, 222 Spooner St., Madison, Wis. (1903)
- TAYLOR, SAMUEL ALFRED, 804 Lewis Block, Pittsburg, Pa. (1911)
- TAYLOR, SENECA N., 530 Pierce Bldg., St. Louis, Mo. (1909)
- TAYLOR, WILLIAM GEORGE LANGWORTHY, 11 Rue Scribe, Paris, France. (1894)
- TEMPLE, HERBERT M., Germania Life Bldg., St. Paul, Minn. (1909)
- †TEXAS STATE LIBRARY, Austin, Texas.
- †TEXAS, UNIVERSITY OF, Library, Austin, Texas.
- THACH, CHARLES CULLMAN, Auburn, Ala. (1904)
- THELLER, RALPH LAURIS, Hotchkiss School, Lakeville, Conn. (1910)
- *THOM, DE COURCY WRIGHT, 119 E. Baltimore St., Baltimore, Md. (1900)
- THOMAS, GEORGE, 217 East Fourth North St., Logan, Utah. (1909)
- THOMAS, S. A., C/o J. M. Robinson & Sons, St. John, N. B. (1911)
- THOMPSON, C. BERTRAND, 3 Dana St., Cambridge, Mass. (1909)
- THOMPSON, CARL WILLIAM, University of Minnesota, Minneapolis, Minn. (1909)
- THOMPSON, CHARLES P., 22 Elm St., New Haven, Conn. (1911)
- THOMPSON, CLAUDE, Crawfordsville, Ind. (1911)
- THOMPSON, JOHN G., 404 E. Oregon St., Urbana, Ill. (1907)
- THOMPSON, J. R., Ishpenning, Mich. (1911)
- THOMPSON, M. W., Trinity Bldg., 111 Broadway, New York City. (1911)
- THURBER, CHARLES HERBERT, 29 Beacon St., Boston, Mass. (1901)
- TIGRETT, AUGUSTUS K., Jackson, Tenn. (1909)
- TIMLIN, W. H., 1600 Grand Ave., Milwaukee, Wis. (1894)
- TIMOLET, JAMES G., 98 Front St., New York City. (1911)
- TINKHAM, H. L., Brockton, Mass. (1911)
- TINSLEY, A. L., 2102 St. Paul St., Baltimore, Md. (1911)
- TINSLEY, RICHARD PARRAN, 26 Broadway, New York City. (1910)
- TOBEY, WALTER L., Hamilton, Ohio. (1910)
- TODD, EDWIN S., Miami University, Oxford, Ohio. (1907)
- †TOHOKU IMPERIAL UNIVERSITY, Agricultural College, Sapporo, Hokkaido, Japan.
- †TOKYO BANKERS' ASSOCIATION, Sakamoto-cho Nihonbashi, Tokyo, Japan.
- TOOKE, CHARLES WESLEY, 606 University Ave., Syracuse, N. Y. (1894)
- †TORONTO, UNIVERSITY OF, Library, Toronto, Canada.
- TOWLES, JOHN KER, 1007 West Illinois St., Urbana, Ill. (1909)
- TOWNE, EZRA THAYER, Northfield, Minn. (1905)
- TOWNER, R. H., 62 William St., New York City. (1904)
- TOWNSEND, CHARLES FREDERICK, 55 Church St., New Haven, Conn. (1911)
- TRENHOLM, MISS M. DE G., 540 East 76th St., New York City. (1910)
- TRUMBOWER, HENRY R., "Merwick", Princeton, N. J. (1905)
- TUCKER, GEORGE FOX, 616 Barristers Hall, Boston, Mass. (1890)
- TUCKER, HENRIETTA INEZ, 536 East 5th St., New York City. (1910)
- TUCKEY, EDSON NEWTON, 214 Comstock Ave., Syracuse, N. Y. (1901)
- †TUFTS COLLEGE LIBRARY, Tufts College, Mass.
- †TYLANE UNIVERSITY LIBRARY, New Orleans, La.
- TURCK, CHARLES JOSEPH, 202 West 103d St., New York, N. Y. (1911)

- TURNER, J. R., 105 Utica St., Ithaca, N. Y. (1909)
- TURRELL, EDGAR ABEL, 76 William St., New York City. (1909)
- TURVILLE, GEORGE A., Thornburg St., Pittsburg, Pa. (1910)
- TUTHILL, EDWARD, 233 S. Lime St., Lexington, Ky. (1910)
- TUTTLE, CHARLES A., 606 W. Wabash Ave., Crawfordsville, Ind. (1887)
- TUTTLE, GEORGE H., P. O. Box 179, New Haven, Conn. (1911)
- †TWIETMEYER, A., Buchhandlung, Leipzig, Germany.
- ULLMAN, ISAAC M., 621 Chapel St., New Haven, Conn. (1909)
- UNDERHILL, C. M., Librarian, Utica Public Library, Utica, N. Y. (1903)
- UNDERWOOD, JOSEPH HARDING, The University, Missoula, Mont. (1911)
- †UNIVERSITY CLUB LIBRARY, Fifth Ave. and 54th St., New York City.
- †UNIVERSITY LIBRARY, Adelaide, South Australia.
- UPHAM, FREDERIC WILLIAM, American Trust Bldg., Chicago, Ill. (1901)
- URDAHL, THOMAS KLINGERBURG, 1532 University Ave., Madison, Wis. (1900)
- †URSINUS COLLEGE, Collegeville, Pa.
- USHER, ABBOTT PAYSON, Cornell University, Ithaca, N. Y. (1911)
- VALGREN, VICTOR NELSON, University of Nebraska, Lincoln, Nebr. (1910)
- VANDERLIP, FRANK ARTHUR, 52 Wall St., New York City. (1904)
- VANKLEECK, MARY, Room 1605, 31 Union Sq. W., New York City. (1910)
- VEDITZ, CHARLES WILLIAM AUGUSTUS, Tariff Board, Treasury Dept., Washington, D. C. (1902)
- VEILLER, LAWRENCE, 105 East 22nd St., New York City. (1910)
- †VERMONT STATE LIBRARY, Montpelier, Vt.
- †VERMONT, UNIVERSITY OF, Burlington, Vt.
- VERRILL, CHARLES H., Bureau of Labor, Washington, D. C. (1911)
- VERRILL, H. M., 72 Bowdoin St., Portland, Me. (1909)
- VICKERS, E. H., Morgantown, W. Va. (1902)
- VIETOR, AGNES C., Trinity Court, Boston, Mass. (1911)
- VINCENT, GEORGE E., University of Minnesota, Minneapolis, Minn. (1901)
- VINEBERG, SOLOMON, 184 Eldridge St., New York City. (1909)
- VINSON, GUY, Drakesboro, Ky. (1910)
- VIRTUE, G. O., University of Nebraska, Lincoln, Nebr. (1893)
- VOGELSTEIN, THEODORE MAX, Akademiestrasse 19, Munich, Germany. (1907)
- VOGT, PAUL LEROY, Pullman, Wash. (1909)
- VOLLUM, CHARLES N., 907 Betz Bldg., Philadelphia, Pa. (1910)
- VROOMAN, CARL S., Arlington Hotel, Washington, D. C. (1911)
- †WABASH COLLEGE LIBRARY, Crawfordsville, Ind.
- WADE, ROBERT BUCHANAN, 11 Wall St., New York City. (1909)
- WADLIN, HORACE G., 118 Woburn St., Reading, Mass. (1893)
- ‡WAGNER, ADOLPH, University of Berlin, Berlin, Germany. (1887)
- WAHLIG, H. G., Sea Cliff, N. Y. (1911)
- WALDEN, Mrs. PERCY TALBOT, 210 St. Roman St., New Haven, Conn. (1901)
- WALKER, FRANCIS, Bureau of Corporations, Washington, D. C. (1895)
- WALKER, GUY MORRISON, 15 Wall St., New York City. (1910)
- WALKER, THOMAS BARLOW, 807 Hennepin Ave., Minneapolis, Minn. (1901)
- WALKER, WILLIAM G., The Courts, Rochelle Park, New Rochelle, N. Y. (1909)
- WALLACE, A. B., 392 Main St., Springfield, Mass. (1909)
- WALLACE, GEORGE M., 478 Orange St., New Haven, Conn. (1911)
- WALLACE, JANET MONROE, 2420 Harney St., Omaha, Nebr. (1909)

- WALLER, ELMER B., Maryville College, Maryville, Tenn. (1905)
 WALLING, WILLIAM ENGLISH, 21 West 38th St., New York City. (1901)
 WALLIS, ROBERT N., Fitchburg, Mass. (1910)
 *WALSH, CORREA MOYLAN, Bellport, L. I., N. Y. (1901)
 WALSH, MATTHEW J., Notre Dame, Ind. (1910)
 WALTON, DAVID S., JR., New Haven, Conn. (1911)
 WARBURG, P. M., 27 Pine St., New York City. (1901)
 WARD, LESTER FRANK, Brown University, Providence, R. I. (1887)
 WARNER, PHILIP J., 1234 Ave. U, Brooklyn, N. Y. (1911)
 WARREN, BENTLEY W., 60 State St., Boston, Mass. (1908)
 WARREN, WILLIAM R., 81 Fulton St., New York City. (1887)
 †WASEDA UNIVERSITY LIBRARY, Tokyo, Japan.
 WASHBURNE, WILLIAM W., 120 Collingwood Ave., Detroit, Mich. (1909)
 †WASHINGTON STATE COLLEGE LIBRARY, Pullman, Wash.
 †WASHINGTON STATE LIBRARY, Olympia, Wash.
 †WASHINGTON UNIVERSITY LIBRARY, St. Louis, Mo.
 †WASHINGTON, UNIVERSITY OF, Seattle, Wash.
 WASSAM, CLARENCE W., State University of Iowa, Iowa City, Iowa. (1909)
 WATERHOUSE, S. W., 474 N. 1st St., San José, Calif. (1911)
 WATERMAN, EDGAR FRANCIS, 88 Collins St., Hartford, Conn. (1903)
 WATKINS, GEORGE P., Public Service Commission, Tribune Bldg., New York City. (1901)
 WATSON, FRANK D., University of Pennsylvania, Philadelphia, Pa. (1908)
 WATSON, WILLIAM A., 187 Marlborough Road, Brooklyn, N. Y. (1904)
 WEATHERLEY, ULYSSES GRANT, Indiana University, Bloomington, Ind. (1901)
 WEAVER, JAMES RILEY, DePauw University, Greencastle, Ind. (1890)
 WEBBER, MYRA E., (Mrs. Joseph F.) 1043 Faile St., Bronx, New York City. (1911)
 WEBBER, W. O., Defiance College, Defiance, Ohio. (1909)
 WEBER, ADNA FERRIN, 464 Elm Ave., Richmond Hill, L. I., N. Y. (1896)
 WEBER, GUSTAVUS A., 1335 F St., N. W., Washington, D. C. (1893)
 WEBNER, FRANK E., 1125 New York Life Bldg., New York City. (1910)
 WEED, ALONZO R., 113 Devonshire St., Boston, Mass. (1909)
 †WEEKLY BULLETIN PUBLISHING CO., Boston, Mass.
 WEEKS, RUFUS WELLS, 346 Broadway, New York City. (1895)
 WEIL, A. LEO, 821 Frick Bldg., Pittsburg, Pa. (1910)
 WELCH, THOMAS F., 49 E. 130th St., New York City. (1911)
 WELD, LOUIS D. H., Bureau of the Census, Washington, D. C. (1909)
 WELLES, FRANCIS RAYMOND, 92 Ave. Henri Martin, Paris, France. (1888)
 †WELLESLEY, COLLEGE LIBRARY, Wellesley, Mass. (1911)
 WELLMAN, HILLER C., The City Library Association, Springfield, Mass. (1908)
 WELLS, AMOS R., 40 Williston Rd., Auburndale, Mass. (1911)
 WELLS, BULKELEY, Telluride, Colo. (1911)
 †WELLS COLLEGE LIBRARY, Aurora, N. Y.
 WELLS, EMELIE LOUISE, Vassar College, Poughkeepsie, N. Y. (1909)
 WELLS, JOSEPH H., 1 Court House Place, Springfield, Mass. (1909)
 †WEST VIRGINIA UNIVERSITY LIBRARY, Morgantown, W. Va.
 WEST, WILLIAM L., 52 W. 3d St., St. Paul, Minn. (1901)
 WESTON, CHARLES, Hay Springs, Nebr. (1902)

- WESTON, NATHAN AUSTIN, University of Illinois, Champaign, Ill. (1894)
- WESTON, STEPHEN F., Yellow Springs, Ohio. (1894)
- WESTON, THOMAS, JR., 410 Sears Bldg., Boston, Mass. (1909)
- *WETMORE, GEORGE PEABODY, Newport, R. I. (1890)
- WETTACH, CHARLES D., 6337 Walnut St., Pittsburg, Pa. (1911)
- WEXLER, S. WHITNEY, Central National Bank, New Orleans, La. (1911)
- WEYL, WALTER E., 29 West 11th St., New York City. (1898)
- †WHALEY, M. J., C. C., 430 Fifth Ave., New York City. (1910)
- WHEALLER, E. O., Box 1, Alto, Ga. (1910)
- WHEELER, EDWARD W., 30 Boylston St., Cambridge, Mass. (1909)
- WHEELER, GUY FRANCIS, 765 Main St., Worcester, Mass. (1909)
- WHEELER, ROY B., 111 West Fourth St., Los Angeles, Calif. (1911)
- WHEELER, WILLIAM R., 1204 Merchants' Exchange, San Francisco, Calif. (1909)
- WHERRY, WM. M., SR., 43 Cedar St., New York City. (1910)
- WHITAKER, ALBERT CONSER, Stanford University, Calif. (1902)
- WHITCOMB, H. F., Colby and Abbot Bldg., Milwaukee, Wis. (1911)
- WHITE, ALICE R., Brooklyn, Conn. (1910)
- WHITE, ANDREW DICKSON, Ithaca, N. Y. (1887)
- WHITE, Mrs. EVA W., 40 Wenonah St., Roxbury, Mass. (1911)
- WHITE, GAYLORD S., 237 East 104th St., New York City. (1909)
- WHITE, HORACE, 18 W. 69th St., New York City. (1892)
- WHITE, JAMES, Commission of Conservation, Ottawa, Can. (1911)
- *WHITE, JULIAN LEROY, 51 News Bldg., Baltimore, Md. (1887)
- WHITE, SMEATON, 298 Stanley St., Montreal, Can. (1910)
- WHITE, WALTER I., Room 53, Albany Trust Co. Bldg., Albany, N. Y. (1911)
- WHITING, Mrs. CHARLES F., 24 Francis Ave., Cambridge, Mass. (1911)
- WHITINGTON, CALVIN KELSEY, 925 Chestnut St., Philadelphia, Pa. (1909)
- WHITMORE, JAMES BRYANT, State College, Pa. (1911)
- WHITNEY, ELI., New Haven, Conn. (1911)
- WHITNEY, NATHANIEL RUGGLES, Johns Hopkins University, Baltimore, Md. (1911)
- WHITTALL, M. J., Worcester, Mass. (1911)
- WHITEMORE, CHAS., 20 Albany St., Cambridge, Mass. (1911)
- WHITEN, ROBERT H., Public Service Commission, 154 Nassau St., New York City. (1900)
- WHITTLESEY, WALTER LINCOLN, 23 N. Edwards Hall, Princeton, N. J. (1906)
- WHYTE, A. F., National Liberal Club, Whitehall Pl., S. W., London, Eng. (1909)
- WICKER, GEORGE RAY, 30 N. Main St., Hanover, N. H. (1900)
- WIGGLESWORTH, GEORGE, 53 State St., Boston, Mass. (1910)
- WILCOX, DELOS FRANKLIN, 123 Fifth St., Elmhurst, N. Y. (1898)
- WILDMAN, MURRAY SHIPLEY, 847 Judson Ave., Evanston, Ill. (1907)
- WILGUS, JAMES ALVA, Platteville, Wis. (1901)
- WILKIE, EDWARD A., 101 Milk St., Boston, Mass. (1909)
- WILKINSON, GEORGE, 127 E. 6th St., Plainfield, N. J. (1910)
- WILLCOX, WALTER FRANCIS, Ithaca, N. Y. (1892)
- WILLCOX, WILLIAM G., 3 S. William St., New York City. (1911)
- WILLET, ALLAN H., Carnegie Institution, Pittsburg, Pa. (1902)

- WILLIAMS, ALEX S., Astoria Mills and Dock Co., Long Island City, N. Y. (1911)
- †WILLIAMS COLLEGE LIBRARY, Williamstown, Mass.
- WILLIAMS, ELLIS D., 560 Drexel Bldg., Philadelphia, Pa. (1910)
- WILLIAMS, FRANCIS M., 54 Mutual Life Bldg., Jacksonville, Fla. (1909)
- WILLIAMS, G. C. F., 990 Prospect Ave., Hartford, Conn. (1901)
- WILLIAMS, HENRY SMITH, 36 East 23d St., New York City. (1910)
- WILLIAMS, JAMES M., Hobart College, Geneva, N. Y. (1909)
- *WILLIAMS, TIMOTHY SHALER, Lloyds Manor, Huntington, L. I., N. Y. (1901)
- WILLIAMS, W. H., 32 Nassau St., New York City. (1910)
- WILLIAMSON, CHARLES C., 476 Fifth Ave., New York City. (1904)
- WILLIS, HENRY PARKER, 206 Cocoran Bldg., Washington, D. C. (1898)
- WILLISTON, SAMUEL, Harvard Law School, Cambridge, Mass. (1909)
- WILLOUGHBY, WILLIAM FRANKLIN, 1725 Lamont St., Washington, D. C. (1888)
- WILMARTH, FREDERIC C., The D. F. Briggs Co., Attleboro, Mass. (1911)
- †WILSON COLLEGE, Chambersburg, Pa.
- WILSON, HUGH M., The Bungalow, Hollis, L. I., N. Y. (1910)
- WILSON, PAUL C., 80 Washington Sq., E., New York City. (1910)
- WILSON, RALPH C., Box 892, Little Rock, Ark. (1911)
- WILSON, WOODROW, Princeton, N. J. (1886)
- WILTSIE, CHARLES H., 820 Powers Bldg., Rochester, N. Y. (1911)
- WINDLE, CHARLES T., Bureau of Corporations, Washington, D. C. (1910)
- WING, ASA S., 4028 Walnut St., Philadelphia, Pa. (1911)
- WING, DAVID LAFOREST, Bureau of Corporations, Washington, D. C. (1904)
- †WINONA FREE PUBLIC LIBRARY, Winona, Minn.
- *WINSLOW, WILLIAM COPLEY, 525 Beacon St., Boston, Mass. (1890)
- WINSTON, AMBROSE PARE, Imperial College of Finance, Peking, China. (1901)
- WINTERBOTHAM, J. M., Madison, Wis. (1909)
- †WISCONSIN FREE PUBLIC LIBRARY COMMISSION, Madison, Wis.
- †WISCONSIN, UNIVERSITY OF, LIBRARY, Madison, Wis.
- †WISCONSIN TAX COMMISSION, Madison, Wis. (1911)
- WISLART, W. C., C/o Public Service Commission, Albany, N. Y. (1911)
- †WOFFORD COLLEGE LIBRARY, Spartanburg, S. C.
- WOLBARST, ABRAHAM L., 105 E. 19th St., New York City. (1911)
- WOLFE, ALBERT BENEDICT, Oberlin College, Oberlin, Ohio. (1905)
- WOLFENSTEIN, SAMUEL, Cleveland, Ohio. (1911)
- WOLHAUPT, BENJAMIN, 185 Madison Ave., New York City. (1911)
- WOOD, FREDERICK A., 295 Pawtucket St., Lowell, Mass. (1894)
- WOOD, KENNETH F., Saylesville, R. I. (1911)
- WOOD, STUART, 400 Chestnut St., Philadelphia, Pa. (1886)
- WOOD, WM. M., P. O. Box 381, Boston, Mass. (1909)
- WOOD, WILLIAM S., 1727 Land Title Bldg., Philadelphia, Pa. (1910)
- *WOODFORD, ARTHUR BURNHAM, 469 Whalley Ave., New Haven, Conn. (1887)
- WOODRUFF, CLINTON ROGERS, 703 North American Bldg., Philadelphia, Pa. (1888)
- WOODS, FRANK F., C/o S. A. Woods Machine Co., Boston, Mass. (1909)
- WOODS, ROBERT ARCHIBY, 20 Union Park, Boston, Mass. (1904)
- WOODWARD, P. HENRY, 742 Asylum Ave., Hartford, Conn. (1902)

- WOODWARD, ROBERT G., 25 Broad St., New York City. (1910)
- WOODWARD, S. W., Woodward & Lothrop Co., Washington, D. C. (1909)
- †WORCESTER FREE PUBLIC LIBRARY, Worcester, Mass.
- *WORTHINGTON, T. K., Lancaster, Pa. (1886)
- WRIGHT, CHARLES R., Fergus Falls, Minn. (1909)
- WRIGHT, CHESTER WHITNEY, University of Chicago, Chicago, Ill. (1904)
- WRIGHT, JOSEPH A., 1416 Third National Bank Bldg., St. Louis, Mo. (1910)
- WRIGHT, MARY, 4308 Frankford Ave., Philadelphia, Pa. (1911)
- WULSEN, LUCIEN, 142 W. 4th St., Cincinnati, Ohio. (1904)
- WYCKOFF, GARRETT P., Grinnell, Iowa. (1904)
- †WYOMING UNIVERSITY LIBRARY, Laramie, Wyo.
- †YANG, CHING-SU, SHANG-WU-KWANG, PAO, Board of Agriculture, Industry, and Commerce, Pekin, China.
- YANG, YING-YUEH, 1125 Bowen Court, Madison, Wis. (1911)
- YARROS, VICTOR S., Hull House, 335 Halsted St., Chicago, Ill. (1901)
- YEISER, H. C., 1224 West 8th St., Cincinnati, Ohio. (1911)
- YOCKEY, F. M., 827 W. Dayton St., Madison, Wis. (1911)
- YOUNG, ALLYN A., Washington University, St. Louis, Mo. (1900)
- YOUNG, FREDERICK GEORGE, Eugene, Ore. (1888)
- YOUNG, HUGH, Wellsboro, Pa. (1911)
- YOUNG, NATHAN BENJAMIN, Tallahassee, Fla. (1911)
- YOUNG, VICTOR, 213 South Peoria St., Chicago, Ill. (1910)
- YOUNGMAN, ANNA PRICHETT, The Ridgeway, Wellesley, Mass. (1909)
- ZHEN, JUEDAN TUN-SHOU, C/o The Hon. Lee V. K., Hanyang Iron & Steel Works, Hanyang, China. (1911)
- ZSCHAU, A. E., 326 Maple Ave., Hamilton, Ohio. (1911)

THE TWENTY-THIRD ANNUAL MEETING

The Twenty-third Annual Meeting of the American Economic Association was held at St. Louis, Mo., on December 27-30, 1910. The American Statistical Association, the American Sociological Society, the American Association for Labor Legislation, and the American Home Economics Association met at the same time and place.

The following program was carried out:

PROGRAM

TUESDAY, December 27.

FIRST SESSION

8 p. m. Joint session of the American Economic Association and the American Political Science Association.—Large Dining Room of Southern Hotel.

Presidential Addresses:

1. Dr. Edmund J. James, President of the American Economic Association. The Economic Significance of a Comprehensive System of National Education.
2. Dr. Woodrow Wilson, Governor Elect of New Jersey, President of the American Political Science Association. The Law and the Facts.

General Reception to the members of the visiting associations by the Local Committee following the presidential addresses.

WEDNESDAY, December 28.

9.30 a. m. *Business meeting.*

SECOND SESSION

10 a. m. Subject: MONEY AND PRICES.

Papers:

1. The Causes of the Changes in Prices since 1896. Prof. J. Laurence Laughlin, University of Chicago.
2. Recent Changes in the Price Level and their Causes. Prof. Irving Fisher, Yale University.

Discussion:

Chancellor D. F. Houston, Washington University.
Prof. Joseph French Johnson, New York University.
Prof. M. S. Wildman, Northwestern University.

THIRD SESSION

2 p. m. Subject: ECONOMIC THEORY, THE RICARDO CENTENARY.

Papers:

1. The Work and Influence of Ricardo. Prof. Jacob H. Hollander, Johns Hopkins University.
2. Where Ricardo Succeeded and Where he Failed. Dr. James Bonar, Deputy Master of the Canadian Mint.

Discussion:

Prof. Alvin S. Johnson, University of Chicago.
 Prof. Lewis H. Haney, University of Texas.
 Prof. H. C. Taylor, University of Wisconsin.

FOURTH SESSION

8 p. m. Subject: ACCOUNTANCY.

Papers:

1. The Economic Aspect of Cost Accounts and its Application to the Accounting of Industrial Companies. Mr. A. Lowes Dickinson, C. P. A., New York City.
2. Accounting Methods for Determining Costs and Prices. Prof. William M. Cole, Harvard University.

Discussion:

Mr. William Arthur Chase, C. P. A., Secretary of the Board of Examiners in Accountancy for the State of Illinois.
 Mr. Edward L. Suffern, President of the American Association of Public Accountants.
 Prof. J. C. Duncan, University of Illinois.

THURSDAY, December 29.

FIFTH SESSION

10 a. m. Subject: CANALS AND RAILWAYS.

Papers:

1. Some Desirable Governmental Policies for River Improvement. Major William H. Hart, U. S. Corps of Engineers.
2. Inland Waterway Policy. Prof. Emory R. Johnson, University of Pennsylvania.
3. The Attitude of the State Toward Railways. A Discussion of the Question of Nationalization. Prof. E. R. Dewsnup, University of Illinois.
4. The Place of the Canal in a National System of Transportation. Prof. W. F. Gephart, Ohio State University.

Discussion:

Hon. W. M. Acworth, Fellow of the Royal Statistical Society, London.
 Prof. John H. Gray, University of Minnesota.
 Prof. H. G. Moulton, University of Chicago.

SIXTH SESSION

2 p. m. Subject: POPULATION AND IMMIGRATION.

Papers:

1. The Occupational Distribution of the Labor Supply. Prof. T. N. Carver, Harvard University.

2. The Early Propagandist Movement in English Population Theory. Prof. J. A. Field, University of Chicago.
3. The Relation of Oriental Immigration to the General Immigration Problem. Prof. J. Allen Smith, University of Washington.

Discussion:

Hon. James Bonar, Ottawa, Canada.

Mr. J. K. Towles, University of Illinois.

Prof. H. A. Millis, Leland Stanford University.

4.30 p. m. *Business Meeting.*

SEVENTH SESSION

8 p. m. Joint Session of the American Economic Association and the American Association for Labor Legislation.

Subject: INDUSTRIAL ACCIDENTS AND INDUSTRIAL DISEASES.

Papers:

1. Lead Poisoning in Illinois. Dr. Alice Hamilton, Medical Investigator Illinois Commission on Occupational Diseases.
2. Neurasthenia Among Garment Workers. Dr. Sidney I. Schwab.
3. Industrial Diseases in America. Mr. Frederick L. Hoffman, Statistician of Prudential Insurance Company of America.
4. Compulsory Compensation for Injured Workmen. Mr. Daniel L. Cease, Editor of Railroad Trainmen's Magazine and Member of National Commission on Workmen's Compensation.
5. Problems of Workmen's Compensation Legislation. Mr. Thomas I. Parkinson, Counsel of the Legislation Drafting Association.
6. Voluntary Indemnity for Injured Workmen. Mr. Ferd C. Schwedtmann, Chairman Committee on Industrial Indemnity Insurance, National Association of Manufacturers.

FRIDAY, December 30.

EIGHTH SESSION

10 a. m. Joint session with the American Political Science Association.

Subject: TAXATION.

Papers:

1. Place of the Income Tax in the Reform of State Taxation. Prof. T. S. Adams, Washington University.
2. The Extent and Significance of the Unearned Increment. Prof. H. J. Davenport, University of Missouri.

Discussion:

Prof. E. R. A. Seligman, Columbia University.

Prof. T. N. Carver, Harvard University.

Prof. H. A. Millis, Leland Stanford University.

Prof. M. H. Robinson, University of Illinois.

NINTH SESSION

2 p. m.

Papers:

1. An Attempt to Define Socialism. Mr. John Martin, New York City.

Discussion:

Mr. Carl G. Parry, University of Michigan.

Prof. Benjamin H. Hibbard, Iowa State College.

Prof. Frank A. Fetter, Cornell University.

2. Government Factories, An Attempt to Control Competition in the Fur Trade. Prof. Katharine Coman, Wellesley College.

BUSINESS MEETINGS AT SAINT LOUIS, MISSOURI.

DECEMBER 27-30, 1910.

A meeting of the Executive Committee was held at the Planters Hotel, on Tuesday, December 27, at 10.45 P. M.

On motion, it was voted to approve the appointment of Professor W. M. Cole, Professor C. W. Doten, and Mr. Harvey M. Chase as a committee to audit the Treasurer's report, and the report of the Managing Editor of the *Economic Bulletin*.

On motion, it was voted to appoint Professors W. M. Cole and C. W. Doten to audit the report of the *Economic Bulletin*.

On motion, it was voted to report to the Association that the first choice of this committee for the place of meeting in 1911 is Washington, D. C., and the second choice is Atlantic City, N. J.

A business meeting of the Association was held on Wednesday, December 28, at 9.30 A. M., at the Planters Hotel. The meeting was called to order by President James.

On motion, it was voted to omit the reading of the minutes of the last meeting, they having been published in the Handbook of the Association.

The report of the Secretary for 1910 was then read, as follows:

REPORT OF THE SECRETARY TO THE AMERICAN ECONOMIC
ASSOCIATION.

A meeting of the Executive Committee was held at the City Club, New York City, Feb. 21, 1910. There were present President James, Messrs. J. H. Hollander, J. B. Clark, E. R. A. Seligman, and T. N. Carver.

On motion, it was voted that the committee express its preference for St. Louis, Mo., as the place of the next annual meeting to be held December 27-30, beginning Tuesday, December 27, at 8 P. M. and closing on Friday, December 30, with an afternoon session.

On motion, it was voted that the Secretary be authorized to issue certificates of membership and to spend whatever money is necessary for suitable plates.

On motion, it was voted that the Treasurer be authorized to borrow, not to exceed \$1000, in case it should be necessary, to pay the running expenses of the Association.

On motion, it was voted that the Editor of the *Bulletin* be authorized to appoint an Assistant to the Managing Editor, at a salary not to exceed \$200.

Professor Seligman reported, as the representative of the Association appointed by the President, on the plans of a committee which is perfecting a general scientific annual to be known as the American Year Book.

On motion, it was voted that the President of the Association be authorized to take such steps as he may deem necessary to secure the representation of the Association upon the editorial board of this Year Book.

The program of the next annual meeting was referred to the President with power.

A meeting of the Executive Committee was held in the Auditorium Hotel in Chicago, at one o'clock P. M., Thursday, April 21, 1910.

Present: John H. Gray, Herbert J. Davenport, A. S. Johnson, Edmund J. James.

The subject discussed was the program for the next annual meeting of the American Economic Association to be held in St. Louis, December 27 to 30. It was decided that headquarters should be selected at one of the down town hotels, either the Planters or the Southern.

It was decided that under the circumstances it would probably not be wise to attempt to hold a session in the buildings of Washington University owing to the uncertainty of weather during the Christmas holidays and the distance of the University from the down town hotels.

The preliminary program was discussed in detail and the general plan adopted which was incorporated in the preliminary program

published by the Executive Committee. There being no other business, the meeting adjourned.

Since the last report, dated December 22, 1909, up to December 20, 1910, the following changes in membership have occurred:

New members added, including life members.....	374
New subscribers added.....	27
	<hr/>
Total additions.....	401
Members dropped for non-payment of dues.....	25
Members resigned.....	16
Members died.....	11
Subscriptions discontinued.....	7
	<hr/>
Total subtractions.....	59
	<hr/>
Net gain.....	342

On December 20, 1910, the number of members and subscribers stood as follows:

Members	1519
Subscribers	183
	<hr/>
Total	1702

Of the 1519 members, 69 are life members and 10 are honorary members.

The following invitations have been received relating to the place of holding the annual meeting of 1911:

From the Governor of the State of Minnesota, from the University of Minnesota, the Minnesota Historical Society, the Commercial Club of Minneapolis, the Commercial Club of St. Paul, and the Mayor of the City of Minneapolis.

From the Carnegie Institute, Pittsburgh, Pa.

From the Washington Chamber of Commerce, Washington, D. C.

From the Convention Bureau of the Portland Commercial Club, Portland, Ore., seconded by the Spokane Chamber of Commerce, the Tacoma Commercial Club, and the Helena Commercial Club; also by the California Development Board, affiliated with the Chambers of Commerce of the State.

From the Chicago Chamber of Commerce.

From the Atlantic City Bureau of Publicity, the Atlantic City

Board of Trade, the Atlantic City Hotel Men's Association, the Atlantic City Business League, and the Hotel Chalfonte.

For the year 1912: From the President of Harvard University.

For the year 1915: From the University of California.

These invitations are on file in the temporary office of the Secretary in the Planters Hotel and are open to any member who desires to read them.

The Secretary has received information of the death of the following members during the year:

James Barr Ames,	Freeborn F. Raymond,
Mrs. A. M. Batchellor,	Albert G. Stark,
James B. Dill,	Francis B. Thurber,
Arthur Cleveland Hall,	Richard M. Venable,
Leonard W. Parish,	Leon Walras.
N. G. Pierson,	

Respectfully submitted,

T. N. CARVER,

Secretary American Economic Association.

On motion, the report was accepted.

The annual report of the Treasurer was then read, as follows:

REPORT OF THE TREASURER TO THE AMERICAN ECONOMIC
ASSOCIATION.

For the Year ending December 20, 1910.

I. *Balance Sheet.*

Investment	\$3,000 00	Bills Payable.....	\$1,000 00
Cash on hand.....	331 74	Accounts Payable.....	980 12
(Bank balance)		Guarantee Fund.....	109 50
	<hr/>		<hr/>
	\$3,331 74		2,089 62
	<hr/>	Surplus	1,242 12
			<hr/>
			\$3,331 74
			<hr/>

II. *Income Account.*

<i>Expenses.</i>		<i>Receipts.</i>	
Quarterly, Printing.....	\$2,071 79	Dues	\$3,300 27
Quarterly, Editorial.....	250 00	Subscriptions to Quar....	728 72
Econ. Bulletin, Printing.	1,767 12	Subscriptions to Bulletin.	19 86
Econ. Bulletin, Editorial.	1,035 00	Sales of Quarterly.....	1,148 47
Office Salaries.....	1,104 90	Sales of Bulletin.....	16 08
Traveling Expenses.....	23 64	Interest	125 04
Stationery, including Of-			<hr/>
fice Printing.....	187 25		5,338 44

Office Postage.....	305 96	
Telephone and Telegraph	187 25	
Express, Freight, and		
Cartage	2 40	
Office Supplies.....	74 87	
Rent	50 00	
Insurance	44 00	
Annual Meeting.....	167 83	
Miscellaneous	23 61	Deficit for year..... 1,798 26
	<hr/>	<hr/>
	\$7,136 70	\$7,136 70
	<hr/>	<hr/>

III. *Surplus Account.*

Deficit for year.....	\$1,798 26	Surplus at beginning of	
Balance at end of year..	1,242 12	year	\$3,040 38
	<hr/>		<hr/>
	\$3,040 38		\$3,040 38
	<hr/>		<hr/>

As stated in the last report, the bills for membership dues sent out in September, 1909, were for four dollars instead of three dollars, covering a year and a third instead of one year. This was in accordance with a previous vote of the Association, the purpose of which was to make all memberships run for the calendar year. This was to the advantage of the treasury for 1909, but to the disadvantage for the present year, there being no regular membership dues coming in in September.

There being practically no cash balance in the treasury at the beginning of the year, the deficit incurred could be met only by selling one of the bonds or by borrowing. Though the Treasurer had been authorized to sell bonds if necessary, he decided to negotiate a temporary loan until the financial situation for the year 1911 could be estimated. The Cambridge Trust Company holds a note for one thousand dollars (\$1000.00) against the Association. In view of the improbability of a surplus in the near future, there seems to be no further reason for this policy, and it is the Treasurer's purpose, unless otherwise instructed, to sell two of these bonds at an early date. This will pay off the note and wipe out the present deficit, and enable the Association to start its new publication enterprise unhampered by old debts.

The revenue from membership dues, and also the gross receipts of the Association for the past six years, are shown by the following table:

	Dues	Gross Receipts
1905	\$2,225 75	\$3,444 52
1906	2,088 59	3,137 36
1907	1,842 60	3,127 98
1908	2,442 37	4,491 01
1909	3,660 83	5,134 11
1910	3,300 27	5,338 44*

There is a slight falling off in the membership dues as compared with the year 1909, owing to the fact, already cited, that there were no membership fees falling due in September of this year. This was almost but not fully made up by the fees of new members added during the year. Conditions ought to be very much improved during 1911. In spite of this decrease in dues, however, the gross revenue is larger than ever, owing mainly to the increased sales of back numbers of our publications.

The following is the Treasurer's forecast of the probable expenses and income of the Association during the year 1911:

Expenses.

Printing Review.....	\$2,500 00	
Editor's salary.....	1,500 00	
Contributions:		
Articles	800 00	
Reviews	600 00	
Traveling expenses of Editors.....	250 00	
Editor's Assistant.....	800 00	
Postage, Stationery, and Office Supplies.....	300 00	
	<hr/>	
	\$6,750 00	
Office of Secretary-Treasurer.....	1,500 00	
Publication of Supplements, <i>i. e.</i> , Proceedings, Handbook, Index, etc.....	1,000 00	\$9,250 00

Income.

Dues, 1440 paying members at \$3.00.....	4,320 00	
Subscriptions:		
100 at \$3.34.....	334 00	
83 at \$4.00.....	332 00	
Sales	1,100 00	
	<hr/>	
Total income on basis of present membership.....	\$6,086 00	
Probable increase of members, 300 at \$3.00.....	900 00	6,986 00
	<hr/>	
Probable Deficit.....		\$2,264 00

As shown by this forecast, the expenses of the Association are increasing by leaps and bounds. This is due mainly to our enlarging plans with respect to our publications. There seems to be a

*This does not include the \$109 50 received on the Guarantee Fund.

disposition on the part of the Association to go forward with this policy of expansion rather than to begin a policy of retrenchment. But expansion costs. In order to keep up this policy, there must be a larger income. There are only two ways of securing this larger income. One is to raise the membership dues, the other is to increase the number of members and subscribers. The efforts of the Treasurer in this direction have succeeded reasonably well, owing to the efficient coöperation of so many of our members. If this coöperation is kept up, it is altogether probable that our income can be increased during the next three years sufficiently to cover all our expenses.

Respectfully submitted,

T. N. CARVER,
Treasurer.

The report of the Auditing Committee was read by Professor W. M. Cole, Chairman.

Boston, Mass., December 24, 1910.

To the Members of the

American Economic Association:

Your Auditing Committee has examined the books and audited the transactions of the Treasurer of the Association for the year, December 27, 1909, to December 21, 1910. The assets and liabilities exhibited on a balance sheet of the latter date as well as the statements of "profit and loss" and "surplus", attached hereto, have been verified in detail.

WILLIAM MORSE COLE,
CARROLL W. DOTEN,
HARVEY S. CHASE,

Auditing Committee.

American Economic Association.

BALANCE SHEET.

December 21, 1910.

Assets.

Investments:
New York City Assessment Bonds, at par\$3,000 00
Cash:
Cambridge Trust Co... 331 74
\$3,331 74

Liabilities.

Note Payable.....\$1,000 00
Accounts Payable..... 980 12
Guarantee Fund for Economic Journal..... 109 50
\$2,089 62
Surplus 1,242 12
\$3,331 74

PROFIT AND LOSS ACCOUNT.

For the Year ended December 21, 1910.

Income.

Membership Dues.....	\$3,300 27
Sales, Quarterly.....	1,148 47
Subscriptions, Quarterly.....	728 72
Sales, Bulletin.....	16 08
Subscriptions, Bulletin.....	19 86
Interest	125 04
	<hr/>
	\$5,338 44

Expenses.

Printing, Quarterly.....	\$2,071 79	
Editorial, Quarterly.....	250 00	
Printing, Bulletin.....	1,767 12	
Editorial, Bulletin.....	1,035 00	
Office Salaries.....	1,104 90	
Traveling Expenses.....	23 64	
Stationery	187 25	
Office Postage.....	305 96	
Telephone and Telegraph.....	28 33	
Express, Freight, and Cartage.....	2 40	
Office Supplies.....	74 87	
Rent	50 00	
Insurance	44 00	
Annual Meeting	167 83	
Miscellaneous	23 61	7,136 70
	<hr/>	
Deficit for the year		\$1,798 28

SURPLUS ACCOUNT.

For the Year ended December 21, 1910.

Balance of Surplus at beginning of year.....	\$3,040 38
Profit and Loss deficit.....	1,798 26
	<hr/>
Balance of Surplus at end of year, per balance sheet....	\$1,242 12

On motion, the reports of the Treasurer and of the Auditing Committee were accepted.

The report of the Publication Committee was read by Professor Hollander, Chairman, as follows:

REPORT OF THE CHAIRMAN OF THE PUBLICATION COMMITTEE.

There has been no change in the activities of the Publication Committee during the current year. The *Economic Bulletin* has continued under the direction of a special board of editors, subject to the ultimate control of the Executive Committee. The Annual

Proceedings have been edited by the Secretary and printing of manuscripts—monographs as well as Proceedings—has been directed from the Secretary's office. Consideration of the future publication policy of the Association, as heretofore, has been in the hands of a special committee on publication, whose report will be submitted to this meeting. The duties of your committee have accordingly been confined to the selection and general editorial supervision of the quarterly monographs edited by the Association.

The issues of the year were as follows:

1. Proceedings of the Twenty-second Annual Meeting, pp. 383.
2. Handbook of the Association, pp. 79.
3. "The Child Labor Policy of New Jersey," by Arthur S. Field, pp. 229.
4. "The American Silk Industry and the Tariff," by Frank R. Mason, now in press.

Your Committee again ventures the opinion that the issues of the year maintain the standard of monographic publication heretofore established, and also to renew the belief that it will be doubtless possible to continue this with indeed, as heretofore, some considerable degree of improvement as the number of monographs selected becomes less and the field of selection greater.

In accordance with the action taken by the Association at the last general meeting, the duties of the Publication Committee are transferred to, and will hereafter be performed by, the Board of Editors of the newly established American Economic Review.

Respectfully submitted (on behalf of the Committee),

JACOB H. HOLLANDER,

Chairman.

On motion, the chair was authorized to appoint a committee on nominations and a committee on resolutions. The chair appointed for the committee on nominations Professors Seligman, Taussig, Ely, Gray, and Irving Fisher; and for the committee on resolutions Professors Hollander and Farnam.

The Executive Committee reported that its first choice of a place of meeting in 1911 was Washington, and its second choice was Atlantic City.

On motion, the report was referred back to the Executive Committee, with instructions to consult the affiliated associations now meeting in St. Louis as to their preference.

On motion, it was voted to adjourn to meet Thursday, December 29, at 9.30 A. M.

On Thursday, December 29, at 9.30 A. M., a business meeting of the Association, at the Planters Hotel, was called to order by President James.

In the absence of Professor Kemmerer, the report of the Managing Editor of the *Economic Bulletin* was read by Professor F. A. Fetter, as follows:

ANNUAL REPORT OF THE MANAGING EDITOR OF THE ECONOMIC
BULLETIN FOR THE YEAR 1910.

At the last meeting of the Association the special committee, appointed the year before to make report with reference to the Association's publications, recommended that the *Bulletin* and the *Quarterly* be merged into a new publication, to be called the *American Economic Review*, which is to represent an enlargement of the *Bulletin*, "so changed in character as to be made into a journal similar . . . to that of the Royal Economic Society, with some additional features, including the expansion and increase of the number of abstracts of important articles in the journals of the various languages; a department of personal notes; book reviews, etc. . . ." This recommendation of the special committee was adopted by the Association, together with a recommendation that "the present publications be continued until arrangements for issuing the new publication are perfected, but not later than December 31, 1910." (Handbook, 1910, pp. 77-78.)

The present Managing Editor presented his resignation to the Association last year. The problem, however, of securing a new editorial staff for the *Bulletin* to act during the short interim, while plans were being perfected for the new *Review*, appeared to offer some obstacles, and the present Managing Editor consented under the circumstances to continue his position for another year.

The scope of the *Bulletin* this year, as during the preceding two, has been that laid down by the Association in 1906, when it decided that the *Bulletin* should be "a professional journal for economic and social students", to contain "signed book reviews, reviews of periodicals, academic notes and news, and reviews and bibliographies of government and statistical publications"—a journal "to be given mainly to bibliography of current literature." (Handbook, 1907, pp. 35 and 39.)

An examination of the *Bulletin* for the year just closing shows

the character of its contents to be as follows: Volume III contained 501 printed pages, of which 45 were given to personal and miscellaneous notes, 196 to book reviews, 9 to the annual list of doctoral dissertations in economics, and 242 to bibliographical notes. Viewed by items, a rough count shows that there were 212 personal and miscellaneous notes, including 6 obituary notices; that 115 books were reviewed; that there were 1847 bibliographical notes of books, of which 602, or 32 per cent, were annotated; that there were 1636 bibliographical notes of magazine articles, of which 1126, or 68 per cent, were annotated; and there were 976 notes of book reviews. Aside from the list of doctoral dissertations, the *Bulletin* for the year contained approximately 4786 separate items. A comparison of the above figures with those of last year (Handbook, 1910, pp. 72-73) shows that there has been a very substantial development of the bibliographical section. For 1910 the bibliography contained 242 pages as compared with 148 pages for 1909, representing an increase in space of about 63 per cent; it contained 1728 annotated notes as compared with 925 for the year 1909, representing an increase of 87 per cent.

The effort made during the past year to develop and improve this feature of the *Bulletin* was in response to the opinion so frequently expressed to the Managing Editor by the members of the Association that the bibliographical section was the most useful department of the *Bulletin*—an opinion which found expression at the last annual meeting in the resolution that in the new *Review* there should be an “expansion and increase of the number of abstracts of important articles in the journals of the various languages . . .”

The finances of the *Bulletin* are in the hands of the Secretary-Treasurer, by whom all the bills, except those incidental to the clerical work of the Managing Editor's office, are paid. These matters doubtless will be covered by his report. For incidental expenses the *Bulletin's* account for the period December 26, 1909, to December 21, 1910, is as follows:

Receipts.

January 1, 1910, balance on hand.....	\$40 24
January 27, cash received from Secretary-Treasurer.....	100 00
May 2, “ “ “ “	100 00
September 17, “ “ “ “	100 00
December 15, “ “ “ “	35 00
	- ——— 375 24

Expenses.

Express, freight, cartage, etc.....	17 41	
Postage stamps.....	44 62	
Telegrams	1 25	
Clerk hire.....	266 85	
Bibliographical periodicals.....	7 05	
Stationery and office supplies.....	14 50	
		<hr/>
	351 68	
Balance on hand.....	23 56	
		<hr/>
		375 24

An itemized expense account, together with appropriate vouchers, are at the disposal of the auditing committee. There are several bills still outstanding, and a few additional expenses will be incurred in connection with the preparation of the index of Volume III and the transferring of the existing stock of *Bulletins* and of certain office supplies to the Secretary-Treasurer and to the Editor of the new *Review*. Probably the cash on hand will be sufficient to meet these expenses.

The Editorial staff of the *Bulletin* during the year has remained unchanged except for the addition of Professor John Bauer of Cornell University as Assistant to the Managing Editor. The board of twenty-two departmental editors is, therefore, the same at the date of the *Bulletin's* last issue as it was at the date of its first issue nearly three years ago. Although the board has been large, the members have shown throughout an admirable spirit of coöperation, for which the Managing Editor takes this occasion to express his most hearty appreciation. Special thanks are due to the Assistant to the Managing Editor, Professor Bauer, whose services have been invaluable. The *Bulletin* wishes to express its gratitude also to the many other members of the Association who have rendered assistance in the furnishing of personal and miscellaneous notes, the writing of book reviews, and particularly the preparing of bibliographical notes on current scientific magazines.

The editorial work of the *Bulletin*, although involving much routine work, has been a pleasant service, and the Managing Editor lays down his duties with the sentiment of Stevenson: "Gladly I lived and gladly die, and I lay me down with a will."

E. W. KEMMERER,

Managing Editor *Economic Bulletin*.

December 22, 1910.

On motion, the report was accepted and placed on file for auditing.

On motion, it was voted that the thanks of the Association be tendered to Professor Kemmerer for his work as editor of the *Bulletin*.

The following report of the Committee on the *American Economic Review* was presented by Professor David Kinley:

In accordance with the authority conferred upon it, your committee requested Professor Davis R. Dewey to assume the editorship. He kindly consented to do it.

Your committee reports further that it has pledges amounting to \$1834 per year on the guarantee fund.

The committee requests that it be continued until it has secured \$2500, or such part thereof as is deemed necessary, and that as soon as this is accomplished that the committee be dissolved.

On motion, the report was adopted.

On motion, it was voted that the functions of the present Publication Committee be merged with the Editorial Board of the *American Economic Review*.

On motion, it was voted that the Executive Committee be instructed to adopt regulations for the governing of the making of payments from the Treasurer to the *American Economic Review*, and for the auditing of its accounts.

The following resolution was presented by Professor T. S. Adams:

"*Resolved*, that the President appoint a standing committee of five (5), of which he shall be *ex officio* chairman, upon Census Relations, which committee shall be authorized to confer with the Director of the Census and at his request to appoint sub-committees to advise with the Bureau of the Census upon the scientific aspects of census work."

On motion, the resolution was adopted.

Voted to request the committee on nominations, together with the Secretary, to bring in a recommendation relating to the filling of the place on the Executive Committee now held by the chairman of the Publication Committee.

Adjourned.

A business meeting of the Association was held at the Planters

Hotel on Thursday, December 29, at 4.30 P. M. The meeting was called to order by President James.

Professor Seligman, on behalf of the committee on nominations, presented the following report:

For President, Prof. Henry W. Farnam, Yale University.

For Vice-Presidents,

Mr. Frederick N. Judson, St. Louis, Mo.,

Prof. Joseph French Johnson, New York University,

Prof. B. H. Meyer, Washington, D. C.

For Secretary and Treasurer,

Prof. T. N. Carver, Harvard University.

For Executive Committee (term expiring in 1913),

Prof. W. M. Daniels, Princeton University,

Prof. Leon C. Marshall, University of Chicago.

For Editorial Board of *American Economic Review*,

Prof. Henry W. Farnam (term expiring in 1911),

Prof. Allyn A. Young (term expiring in 1911),

Prof. Henry C. Taylor (term expiring in 1912),

Prof. Henry B. Gardner (term expiring in 1912),

Prof. J. H. Hollander (term expiring in 1913),

Prof. Leon C. Marshall (term expiring in 1913).

On motion, the report was accepted, and the Secretary was instructed to cast one ballot in favor of the persons nominated.

The nominating committee recommended further that the Editorial Board select its own chairman, and that this chairman be a member of the Executive Committee in place of the chairman of the present Publication Committee.

Professor Hollander, on behalf of the committee on resolutions, presented the following report:

RESOLUTION REPORTED BY THE COMMITTEE ON RESOLUTIONS TO
THE AMERICAN ECONOMIC ASSOCIATION.

On the even of adjournment, after a meeting marked to a very high degree by profitable intercourse and stimulating contacts, the American Economic Association, desiring to express its appreciation of the hospitality which has distinguished its sojourn in St. Louis, be it

Resolved, That the Secretary of the Association be instructed to make formal record in its minutes and to transmit to the hosts of the Association an expression of the obligation and gratitude felt

by the assembled membership for the courtesies extended them, and more particularly to convey their heartfelt thanks to

The Honorable Herbert S. Hadley, Governor of the State,

The Chancellor and the Board of Trustees of Washington University,

Mr. C. H. Huttig and the members of the Citizens' Committee,

The St. Louis Club,

The Mercantile Club,

The University Club,

Prof. T. S. Adams, Secretary of the Citizens' Committee.

Respectfully submitted,

JACOB H. HOLLANDER,

HENRY W. FARNAM,

Committee.

On motion, the report was adopted.

On motion, it was voted to refer to the Executive Committee, with power, the question of the time and place of the next meeting.

On motion, it was voted that a committee of three, with power to increase the number to five, be appointed on membership. The following persons were appointed: Roger W. Babson, Frank H. Dixon and A. W. Shaw.

A meeting of the Executive Committee was held at the Planters Hotel on Friday afternoon, at 4 P. M.

On motion, it was voted to appoint for the following year an auditing committee consisting of W. M. Cole, C. W. Doten, and Harvey S. Chase, with additional power to arrange the relations between the Treasurer and the *American Economic Review*.

On motion, it was voted to appropriate not to exceed \$4500 from the income of the current year for the expenses of the *American Economic Review*, and to call upon the guarantee fund for such sums, not exceeding \$2500, as are necessary to cover any deficit.

FIRST SERIES

Volume I, 1886

No.		Price in paper
1.	Report of Organization of the American Economic Association. Pp. 46.	\$.50
2-3.	*Relation of the Modern Municipality to the Gas Supply. By E. J. James. Pp. 66.	.75
4.	Co-operation in a Western City. By Albert Shaw. Pp. 106.	.75
5.	*Co-operation in New England. By Edward W. Bemis. Pp. 136.	.75
6.	*Relation of the State to Industrial Action. By H. C. Adams. Pp. 85.	.75

Volume II, 1887

1.	Three Phases of Co-operation in the West. By Amos G. Warner. Pp. 119.	.75
2.	Historical Sketch of the Finances of Pennsylvania. By T. K. Worthington. Pp. 106.	.75
3.	The Railway Question. By Edmund J. James. Pp. 68.	.75
4.	Early History of the English Woolen Industry. By W. J. Ashley. Pp. 85.	.75
5.	Mediæval Guilds of England. By Edwin R. A. Seligman. Pp. 113.	.75
6.	Relation of Modern Municipalities to Quasi-Public Works. By H. C. Adams and others. Pp. 87.	.75

Volume III, 1888

1.	Statistics in College, by C. D. Wright; Sociology and Political Economy, by F. H. Giddings; The Legal-Tender Decisions, by E. J. James. Pp. 80.	.75
2.	Capital and Its Earnings. By John B. Clark. Pp. 69.	.75
3.	The Manual Laboring Class, by F. A. Walker; Mine Labor in the Hocking Valley, by E. W. Bemis; Report of the Second Annual Meeting. Pp. 86.	.75
4-5.	**Statistics and Economics. By Richmond Mayo-Smith. Pp. 127.	1.00
6.	The Stability of Prices. By Simon N. Patten. Pp. 64.	.75

Volume IV, 1889

1.	Contributions to the Wages Question: The Theory of Wages, by Stuart Wood; Possibility of a Scientific Law of Wages, by J. B. Clark. Pp. 69.	.75
2.	Socialism in England. By Sidney Webb. Pp. 73.	.75
3.	Road Legislation for the American State. By J. W. Jenks. Pp. 83.	.75
4.	Third Annual Meeting: Report of the Proceedings. Pp. 123.	.75
5.	Malthus and Ricardo, by S. N. Patten; The Study of Statistics, by D. R. Dewey; Analysis in Political Economy, by W. W. Folwell. Pp. 69.	.75
6.	*An Honest Dollar. By E. Benjamin Andrews. Pp. 50.	.75

Volume V, 1890

1.	The Industrial Transition in Japan. By Yeiji-ro Ono. Pp. 122.	1.00
2.	Two Essays on Child-Labor. By W. F. Willoughby and Clare de Graffenried. Pp. 150.	.75
3-4.	Papers on the Canal Question. By E. J. James and L. M. Haupt. Pp. 85.	1.00

Publications of the American Economic Association

5. History of the New York Property Tax. By J. C. Schwab. Pp. 108. 1.00
6. The Educational Value of Political Economy. By S. N. Patten. Pp. 36. .75

Volume VI, 1891

- 1-2. Fourth Annual Meeting: Reports, Papers, Discussions. 1.00
3. Government Forestry. Papers by Pinchot, Bowers, and Fernow. Pp. 102. .75
- 4-5. Municipal Ownership of Gas in the U. S. By E. W. Bemis. Pp. 185. 1.00
6. State Railroad Commissions. By Frederick C. Clark. Pp. 110. .75

Volume VII, 1892

1. *The Silver Situation in the United States. By F. W. Taussig. Pp. 118. .75
- 2-3. **Shifting and Incidence of Taxation. By E. R. A. Seligman. Pp. 424. (Revised). 2.00
- 4-5. Sinking Funds. By Edward A. Ross. Pp. 106. 1.00
6. The Reciprocity Treaty with Canada of 1854. By F. E. Haynes. Pp. 70. .75

Volume VIII, 1893

1. Fifth Annual Meeting: Report of the Proceedings. Pp. 130. .75
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